

Rural District of Chester-le-Street.

---

FIFTEENTH

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

ON THE

Health and Sanitary Condition

OF THE DISTRICT

FOR THE YEAR 1909.

---

DURHAM:

THOMAS CALDCLEUGH & SON, 45, SADDLER STREET.



Digitized by the Internet Archive  
in 2017 with funding from  
Wellcome Library

<https://archive.org/details/b2910810x>

## CHESTER-LE-STREET.

---

TO THE CHAIRMAN AND MEMBERS OF THE RURAL DISTRICT  
COUNCIL.

GENTLEMEN,

I herewith submit for your consideration my Annual Report on the Health and Sanitary condition of your district during the year 1909.

I have to thank your Council for your continued confidence, and for the courtesy I have received from you throughout the year.

I am, Gentlemen,  
Your obedient Servant,

JOHN TAYLOR.

*28th February, 1910.*

## INTRODUCTORY.

As from the 1st April, the area of the district has been lessened by the constitution of the parish of Chester-le-Street into an Urban District. The acreage has been diminished by 2,501 acres and the population by 14,200 (estimated).

This report deals with the present district alone. All the Vital Statistics, &c., of this year apply to the present rural district. I have dealt with the parish of Chester-le-Street for the first three months of the year, during which it was an integral part of the rural district, in an appendix, as if it had been then a separate district, because, for future comparison, I judge this course the better, than a course of inclusion for one part of the year in the rural district.

## PHYSICAL ASPECT OF THE DISTRICT.

The district is hilly and broken up in numerous valleys, the greater number of which converge to the chief valley called the Team. This chief valley has its long diameter generally North and South.

The elevation varies from slightly above sea level to a little over 600 feet.

## OCCUPATION OF THE INHABITANTS.

Whilst Brickmaking, Engineering, Pipe Making, and Agriculture employ some, the great majority of the people are engaged in Mining, with its kindred occupation of Cokemaking.

## NEW ENACTMENTS DURING THE YEAR.

Late in the year (3rd December) the Housing and Town Planning Act came into operation. This Act extends to a considerable extent your Council's powers, respecting the condition of houses for the working classes, and simplifies the past manner of dealing with houses unfit for human habitation. By this Act, Part III of the Housing of the Working Classes Act of 1890 shall extend and take effect in every rural district, as if it had been adopted by a resolution of your Council. It gives power to the Local Government Board to make an order on a local Authority requiring such authority to carry out their duties under Parts II and III of the principal Act, and if such Authority neglect this order, the Board may enforce their order by Mandamus.

A far-reaching provision of this Act is the power it gives local authorities to make a house fit for human habitation, to charge the cost of the necessary work on the owner, and to enforce

payment of the same, either by one payment or by several yearly payments, plus 5 % per annum, over a period not exceeding five years.

To safeguard the owner in such cases from any probable or supposed unfairness on the part of the local authority, an appeal to the Local Government Board by the owner is provided for.

With respect to closing orders, the old cumbrous and very unsatisfactory method of proceedings before the magistrates is now dispensed with, and the local authority's resolution to that effect is sufficient. Here again the aggrieved owner has an appeal to the Local Government Board.

Further, sec. 69 (2) of the Act empowers the County Medical Officer of Health to demand from district Medical Officers "any information which it is in his power to give, and which the Medical Officer of Health of the County may reasonably require from him, for the purpose of his duties prescribed by the Local Government Board."

Sec. 69 (4), "If.....the Medical Officer of Health of a district Council fails to comply with the provisions of this section, he shall on information being laid by the County Council, but not otherwise, be liable, on summary conviction in respect of such offence, to a fine not exceeding ten pounds."

One waits for experience of the working of this section, but, *primâ facie*, it is fraught with much trouble and unpleasantness to district officers, unless a broad view of its requirements is taken, as well by the County Council as by the district Council, for if it does not place an officer of a local authority between the frying-pan and the fire, it may place him between the police court and his employers.

With reference to the Public Health Acts Amendment Act, 1907, your Council made application to the "Board" for their sanction to the adoption of Parts II, III, IV, and V. The Board granted the application with the exception of secs. 19, 48, 51, whilst 47 is not in force in those contributory places in which sec. 39 of the Public Health Act (Amendment Act) of 1890 is not in force. This Act was not in operation at the end of the year, but will be so, as soon as the Board's order is issued.

These two enactments will very much facilitate the carrying out and enforcing sanitary improvements, they simplify procedure, and the Act of 1909 designates an arbiter between the authority and an aggrieved person, an arbiter whose absolute fairness everyone can accept and appreciate.

Acting on the "Board's" suggestion in their circular letter of the 2nd December, 1908, your Council resolved to make compulsory the notification of Glanders and Anthrax in man.

The Board's sanction was applied for and the Board's approval given. The compulsory notification of these two fatal diseases in man is now enforced in your district.

No action was taken by the Authority, during the year, under the provisions of Part III of the Housing of the Working Classes Act of 1890, but the scheme by which the County Council was to build houses under the provisions of that Act at Usworth is now being carried out. The whole of the 50 houses are under construction and some will be tenanted within three or four months.

The failure to obtain the Board's sanction to expend money on the bacteriological examination of milk for Bacillus Tuberculosis has prevented any examinations of milk for the detection of such organism from being continued during the year.

Nothing has been done to ascertain the presence of, or freedom from, Bacillus Coli in our water supplies.

Both these articles of consumption demand constant watching, and it is highly desirable that power should be obtained to permit willing authorities to more efficiently supervise these two very important articles which enter so largely into our daily foods.

#### POPULATION.

The previous yearly increase of your population continues, and to the same extent. The increase is chiefly marked in Birtley, Lumley Little, Pelton, Washington, and Witton Gilbert, whilst there is a slight decrease in Burnmoor and Waldridge.

I estimate the population of the district at the middle of the year to be 62,739, an increase of 1,703 or 2·79 per cent., as compared with 2·74 per cent. during last year.

The population in this estimate is arrived at by multiplying the number of inhabited houses on a given date by the average number of persons per house at the last census, and therefore the accuracy of my estimate depends entirely on the accuracy of the number of inhabited houses in each township as given to me by the courtesy of the respective assistant overseers, whose kindness, in yearly giving me these numbers, I wish here to acknowledge.

The number of births in excess of deaths is 1,419, as compared with 1,252 last year and 1,171 the previous year.

The difference between the estimated population and the increase of the population arising from the excess of births over

deaths distinctly demonstrates that a large influx of persons is taking place yearly, since there is no record of emigration, of which some must have taken place.

### MARRIAGES.

The number of marriages registered during the year has been 483.

The marriage rate for the year has been 15·39 per 1,000, as compared with 14·81 last year and with 15·25 during the previous year.

The marriage rate for England and Wales for the year ending 30th September, 1909, is 14·57 per 1,000.

Marriage rate from 1896 to 1909 inclusive :—

YEAR.	NUMBER.	RATE PER 1,000.
1896 .....	461 .....	16·2
1897 .....	469 .....	16·4
1898 .....	490 .....	16·6
1899 .....	444 .....	15·2
1900 .....	458 .....	15·1
1901 .....	492 .....	16·1
1902 .....	515 .....	16·4
1903 .....	470 .....	14·5
1904 .....	545 .....	16·3
1905 .....	487 .....	14·1
1906 .....	552 .....	15·5
1907 .....	556 .....	15·2
1908 .....	555 .....	14·8
1909 .....	483 .....	15·3

### BIRTHS.

The number of births registered during the year is 2,361, as compared with 2,299 last year and with 2,125 the year before. This shows an increase of only 62 over the number of births last year. The birth rate is 37·75 per 1,000, as compared with a rate of 37·58 per 1,000 last year and a rate of 35·99 per 1,000 during 1907.

The birth rate for the administrative County is 35·5 per 1,000, and for England and Wales the rate is 25·6 per 1,000.

The first three quarters varied little, but there was a considerable decline during the fourth quarter, as much as 6·88 per 1,000 between it and the second quarter.

If the different townships are compared, taking only those townships having a population of 2,000 or upwards, the highest rates are in Pelton (47·06), Ussworth (42·00), Lumley Great (41·97), and Washington (40·70), and lowest in Urpeth (28·61), Lamesley (30·33), Edmondsley (34·27), and Birtley (36·21).

During the year 97 illegitimate births have been registered, which is equal to a percentage of 4·01 of all births, as compared with a percentage of 3·77 last year and of 3·39 during the previous year.

First Quarter, Births ..	594 ..	Rate, 37·87 per 1,000.
Second ,,, ,..	631 ..	,, 40·22 ,,, ,
Third ,,, ,..	613 ..	,, 39·08 ,,, ,
Fourth ,,, ,..	523 ..	,, 33·34 ,,, ,

### DEATHS.

The number of deaths registered during the year occurring within the district is 908, as compared with 928 last year and 897 the previous year. There is a slight decrease of 20, as compared with last year. In addition to this number of deaths there are the deaths of persons, belonging to your district, which have taken place outside your district, such as in the Union Workhouse, Isolation Hospital, General Hospitals and Asylums. These deaths have to be added to the number previously given, to arrive at the net number of deaths of persons whose domicile is in the rural district. When this additional number, viz., 34, is taken account of, the total deaths of persons belonging to the district is 942. The general death rate is 15·01 per 1,000, as compared with 17·42 per 1,000 last year, and with 16·48 during 1907. It will be seen that there has been a decided fall in the death rate for the year, amounting to 2·39 per 1,000. This is the lowest death rate for any year of which I have a record, and if the table on page 14 is consulted the difference between the death rate for this year and for the previous 22 years will be seen to be marked. Consultation of the same table shows that your general death rate has been steadily declining during the 20 years past. The quinquennial period of 1890–1895 showed a slight average increase of 0·44 per 1,000, but every quinquennial period afterwards shows a tendency, small certainly, but continuous, to decline, so that the average death rate for the four years ended now is as much as 2·77 per 1,000 lower than the quinquennial period ending with 1895. The death rate for the administrative County is 15·70 per 1,000, as compared with 17·5 per 1,000 for last year, whilst the general death rate for England and Wales this year is 14·5 per 1,000, as compared with 14·7 per 1,000 last year. It is almost certain that the death rate for the administrative County is over-estimated, from the fact that the population is most probably under-estimated. That being so, there is still room for improvement in the death rate of your district, in order to your district assuming a better position in the comparison of one district's sanitary condition and another, provided the general death rate is to be made the index for such placement.

Undoubtedly the cold, wet, "unseasonable" summer and year generally, whilst it increased chest diseases, was otherwise favourable to the production of a low death-rate; especially was such weather unfavourable to the production of Diarrhoeal diseases and to Enteric Fever.

### INFANTILE DEATHS.

The number of children who died before reaching the age of one year is 332, as compared with 405 last year, and with 314 during the previous year. The deaths of infants have been reduced by 73 during the year.

The infantile death rate is 140·6 per 1,000 born, as compared with 176·1 per 1,000 born last year, and with 147·7 per 1,000 born during the previous year. This marked decrease in the deaths of children is accounted for by the marked diminution of deaths from Infantile or Zymotic Diarrhoea, due to the cold summer.

This year there were only 29 deaths from this fatal ailment of children.

The Infantile death rate in the administrative County for the year is 124 per 1,000 born, as compared with 151 per 1,000 born last year, and for England and Wales the Infantile death rate is 109 per 1,000 born, as compared with 121 per 1,000 born last year. There is a wide margin between the infantile death rate of your district, and that of the County as a whole, but a wider one between it and that of England and Wales, in the latter case amounting to no less than 31·5 per 1,000. Had your Infantile death rate equalled that of England and Wales, 74 lives would have been gained, a no mean saving.

In the 76 great towns of England and Wales (population over 100,000) the infantile death rate is 118 per 1,000 born; in the 142 smaller towns having a population of from 20,000 to 100,000 the infantile death rate is 111 per 1,000 born, and in England and Wales, less the 218 towns mentioned, the death rate is only 98 per 1,000 born. If your district is compared with that portion of England and Wales outside the 218 towns, the population of which is 20,000 or upwards, and I think the true comparison is between that part of England and Wales, and not England and Wales as a whole, the comparison is more unfavourable to your district, and instead of there having been a saving of 74 infant lives, there could have been a saving of 100 lives.

As in former years, premature birth demands a heavy toll from infant life. No fewer than 75 children died this year from prematurity.

This is 22·6 per cent. of all infantile deaths. Next comes chest affections, which are responsible for over 17 per cent., and Diarrhoea, which caused 8·7 per cent., a smaller percentage for this disease than had the summer been warm instead of cold.

Deaths from prematurity continue high, and 22·6 per cent. is particularly high.

This is a serious outlook, and one doubts whether there may not be some agency at work to produce such a large number of premature children. More than one cause enters into the production of premature children, but probably there is one growing cause which is in no way hid from the many, and the use of which is dangerous not only to the unborn offspring, but to the mother. Other prenatal agencies are at work, viz., disease contracted, it may be, by either parent long before the conception of the child it destroys.

This particular cause is on the increase, and there is every reason to believe it will increase until such times as a bold Government undertakes the enactment of a C.D. Act which years ago was in force in our military and naval centres and towns.

If one analyses the infantile deaths so far as age is concerned, 109, or 32·8 per cent., died under one week old, and 42 more died before the end of the fourth week of life, so that 151 died before a month old. This means that 6·4 per cent. of all the children born this year never reached the end of their fourth week alive, and that 14 per cent. never reached the end of their first year.

This is a very serious waste of infant life, and without doubt many lives now sacrificed by carelessness, want of knowledge, or want of proper understanding of paternal obligation to their offspring, could be saved to the nation.

To attain this end diffusion of knowledge amongst mothers or prospective mothers of all ages is highly desirable. Too often parents, to indulge their own desire of pleasure, wantonly expose their young infant to all the rigours of a stormy evening, or, on the other hand, from a wish to be particularly kind or indulgent to an infant, feed it on substances useless or absolutely hurtful. In both instances want of knowledge, want of appreciation as to the difference between the physical condition of the infant and of the adult, are the reasons for this conduct to their infant. No one suggests that the carelessness is wilful, it is unintentional, but yet unintentional neglect is as harmful to the child as the same neglect if wilful.

To combat this want of knowledge, special teaching must be given to the community, either at the elementary school, or at the home after adult and maternal age is reached.

This brings one again to the question of "Health Visitors." Are Health Visitors of any use? Are they received with respect and with pleasure at the homes of the working classes? This question has been raised before, and has been answered in the negative by many. Evidently they who so readily answer in the negative were speaking in haste, and, whilst I do not quote the Psalmist, the experience of places where the Health Visitor is established tells that the Health Visitor is welcomed and respected. Amongst the negatives it may have been that the "wish was father to the thought."

Wherever the tactful Health Visitor has been at work there is nothing but praise from those who are best able to judge of her efforts and successes. I do not wish, however, to suggest that the employment of Health Visitors in any part of your district is to reduce your infantile mortality to the level of that of England and Wales. Far from it, but I believe that, with a sufficient lapse of time, the teaching of the elementary school, followed up by the continuance of this teaching in the home, and the example by the Health Visitor, will make an appreciable difference in your infantile mortality. It will be seen from the table on page 14 that whilst your general death rate has considerably decreased during the past 20 years, the Infantile death rate is much to-day as it was 20 years ago.

I consider that the time has quite arrived when your Council should seriously consider the desirability of appointing one or more ladies as Health Visitors. Surely some attempt should be made to check, or attempt to check, the huge holocaust of infants which annually takes place in some of your parishes. Take for example Pelton, where 18 per cent. of children die before reaching the end of their first year; Urpeth, 22 per cent.; Witton Gilbert, 16 per cent.; and Waldridge, 17 per cent.; and this in a year which is one of the very lowest years of Infantile Mortality.

The greatest number of deaths occurred during the first quarter of the year, and the least number during the third quarter.

First Quarter . . . . .	Deaths, 268 ..	Rate, 17.08 per 1,000.
Second ,. . . . .	235 ..	14.98 ,,
Third ,. . . . .	191 ..	12.17 ,,
Fourth ,. . . . .	248 ..	15.81 ,,

The general death rate for each township will be found in Table XIII. The highest general death rates in townships with a population of 2,000 and upwards are: Pelton (18.69), Edmondsley (17.56), Usworth (16.87), and Lumley Great (16.79), and the lowest rates are in Lamesley (12.38), Birtley (12.56), Harraton (14.27), and Witton Gilbert (14.71).

With reference to Infantile death rate the highest townships in the same distinction regarding population are : Urpeth (224), Pelton (184), Witton Gilbert (160), and Usworth (128), and the lowest are : Harraton (83), Lumley Great (106), Washington (113), and Lamesley (115).

First Quarter .. Deaths,	86 ..	Rate, 144·7 per 1,000 born.
Second .. .. ,	77 .. ,	122·0 .. ,
Third .. .. ,	79 .. ,	128·8 .. ,
Fourth .. .. ,	90 .. ,	172·0 .. ,

Deaths from the seven chief Zymotic Diseases, viz., Smallpox, Whooping Cough, Measles, Diphtheria and Membranous Croup, Fever (Typhus, Typhoid or Enteric, and Continued) and Diarrhoea, number 112, as compared with 221 last year, and 98 during 1907. The decrease this year is due to the very low incidence of Diarrhoea, as the increase last year was due to the high incidence of Diarrhoea, with its heavy toll of death. The Zymotic death rate is 1·78 per 1,000, as compared with 3·62 per 1,000 last year, and with 1·66 per 1,000 during 1907.

The zymotic death rate for the administrative County is 1·61 per 1,000, and for England and Wales the rate is 1·12 per 1,000.

The zymotic death rate in townships having a population of 2,000 or upwards is greatest in : Lumley Great (4·44), Pelton (3·18), Washington (2·85), and Usworth (2·06), and least in Birtley (0·61), Edmondsley (0·85), Urpeth (0·87), and Harraton (0·89).

The following table gives the number of deaths from zymotic diseases during the past three years :—

DISEASE.	1907.	1908.	1909.
Smallpox .....	0 ..	0 ..	0
Scarlet Fever .....	1 ..	12 ..	10
Measles .....	44 ..	15 ..	12
Whooping Cough .....	4 ..	43 ..	28
Diphtheria and Membranous Croup .....	15 ..	9 ..	13
Fever (Enteric and Continued)	2 ..	12 ..	7
Diarrhoea .....	32 ..	127 ..	42

Diseases of the Respiratory System, Pneumonia, Bronchitis and Pleurisy caused 166 deaths, as compared with 158 deaths last year, and with 170 deaths the previous year.

Deaths from Diarrhoea are comparatively few, being only 42, as compared with 127 last year, and with 32 during 1907. The great majority of deaths from Diarrhoea occur in early

infancy. This year, of the 42 deaths from this fatal infantile ailment, no fewer than 29, or 71·3 per cent., were amongst infants under one year old, whilst other 9 were amongst children between 1 and 5 years, so that not less than 90·5 per cent. of these deaths were amongst children of under 5 years of age.

As is now quite recognised, Diarrhœa is a filth disease, being especially prevalent during years of long continued high summer and autumn temperature. The essential element for the production of Summer or Zymotic diarrhœa, in addition to a specially high temperature, is the presence of filth. Hence badly-scavenged ashpits, foul privies, yards, streets, and houses, the presence of domestic animals, with all their accompanying malodorous and offensive surroundings, are the conditions absolutely favourable for the production and the continuation of diarrhœa, with its persistently highly fatal ending.

However nice it may appear to be to have domestic pets, such as rabbits, guinea pigs, cats, dogs, and fowls, they can only be kept at the expense of human life, unless kept far away from the house. The useful domestic animals, as the horse and pig, are equally guilty of keeping alive diarrhœa. Under all circumstances, and especially where stables are close to dwelling-houses, special means should be taken to frequently empty and effectively disinfect all manure pits, either by the application of chlorinated lime, or a carbolised powder in profuse quantity, having at least a percentage of 20 of pure cresylic acid. The sides and floor of manure pits should be carefully brushed before the disinfectant is applied, and if one thing more than another is required to lessen the fouling of the air by these pits, it is the absolutely frequent emptying of these places, at the very least once every week.

#### BIRTHS AND DEATHS OF ILLEGITIMATE CHILDREN.

During the year the births of 97 illegitimate children have been registered, giving an illegitimate birth rate of 1·54 per 1,000.

The number of deaths of illegitimate children is 24. The infantile death rate for illegitimate children is 247·4 per 1,000 born, as compared with 136·0 per 1,000 born legitimate.

The birth rate, general death rate, zymotic death rate, and infantile death rate are shown in the following table from 1887, with the quinquennial averages.

The table brings out clearly the steady fall in the general death rate. In the birth rate there is a rise during the 1891-1895 quinquennial period, after which there is a steady fall, marked during the years 1906 to 1909 inclusive.

YEAR.	BIRTH RATE.	QUIN- QUENNIAL AVERAGE.	YEAR.	DEATH RATE.	QUIN- QUENNIAL AVERAGE.
1887 ..	39·00		1887 ..	18·87	
1888 ..	37·70		1888 ..	18·16	
1889 ..	34·60	36·77	1889 ..	18·50	18·76
1890 ..	35·80		1890 ..	19·50	
1891 ..	39·50		1891 ..	19·90	
1892 ..	39·70		1892 ..	19·10	
1893 ..	40·40	39·96	1893 ..	20·80	19·20
1894 ..	39·50		1894 ..	20·10	
1895 ..	40·70		1895 ..	19·70	
1896 ..	38·09		1896 ..	19·00	
1897 ..	37·80		1897 ..	16·50	
1898 ..	38·78	38·39	1898 ..	18·35	18·51
1899 ..	38·31		1899 ..	18·44	
1900 ..	38·96		1900 ..	20·26	
1901 ..	39·12		1901 ..	19·26	
1902 ..	38·58		1902 ..	17·29	
1903 ..	38·36	38·53	1903 ..	18·81	18·31
1904 ..	38·87		1904 ..	18·50	
1905 ..	37·71		1905 ..	17·69	
1906 ..	36·52		1906 ..	16·59	
1907 ..	34·75		1907 ..	16·44	
1908 ..	37·49	36·39	1908 ..	17·67	16·43
1909 ..	37·63		1909 ..	15·01	

YEAR.	PER 1,000.	ZYMOTIC DEATH RATE	YEAR.	PER 1,000 BORN.	INFANTILE DEATH RATE
1887 ..	....		1887 ..	201·0	
1888 ..	....		1888 ..	177·7	
1889 ..	2·30		1889 ..	166·0	179·3
1890 ..	3·30		1890 ..	172·6	
1891 ..	2·10		1891 ..	174·9	
1892 ..	2·50		1892 ..	146·1	
1893 ..	3·40	2·69.	1893 ..	177·6	171·7
1894 ..	3·30		1894 ..	177·0	
1895 ..	2·27		1895 ..	183·0	
1896 ..	3·72		1896 ..	182·0	
1897 ..	2·17		1897 ..	147·5	
1898 ..	3·41	2·91	1898 ..	198·8	179·0
1899 ..	2·93		1899 ..	169·0	
1900 ..	2·44		1900 ..	197·7	
1901 ..	3·41		1901 ..	177·3	
1902 ..	1·89		1902 ..	137·5	
1903 ..	2·34	2·74	1903 ..	174·6	172·1
1904 ..	3·07		1904 ..	191·6	
1905 ..	3·01		1905 ..	179·4	

ZYMOTIC DEATH RATE		INFANTILE DEATH RATE	
YEAR.	PER 1,000.	YEAR.	PER 1,000 BORN.
1906 ..	2·42	1906 ..	163·0
1907 ..	1·56	1907 ..	148·3
1908 ..	3·53	1908 ..	176·5
1909 ..	1·61	1909 ..	140·6
	2·28		157·1

The following table gives the chief rates for your district, for the administrative County, and for England and Wales, per 1,000 of the population :—

	CHESTER-LE- STREET.	ADMINIS- TRATIVE COUNTY.	ENGLAND AND WALES.
Estimated Population .....	62,739	.. 854,800	35,756,615
Birth rate .....	37·63	.. 35·50	.. 25·60
Death rate .....	15·01	.. 15·70	.. 14·50
Zymotic death rate .....	1·78	.. 1·61	.. 1·12
Infantile Mortality per 1,000			
born .....	140·6	.. 124·00	.. 109·00
Death rate per 1,000 population :—			
Smallpox .....	0·00	.. 0·00	.. 0·00
Scarlet Fever .....	0·15	.. 0·09	.. 0·09
Diphtheria and Mem- branous Croup .....	0·19	.. 0·17	.. 0·14
Fever (Enteric and Continued) .....	0·11	.. 0·12	.. 0·06
Measles .....	0·19	.. 0·37	.. 0·35
Whooping Cough .....	0·44	.. 0·25	.. 0·20
Diarrhoea .....	0·66	.. 0·59	.. 0·28
Phthisis .....	0·65	.. 0·91	.. ....
Other Tubercular Diseases	0·49	.. 0·73	.. ....
Respiratory Diseases other than Phthisis .....	2·64	.. 2·38	.. ....
Marasmus .....	0·39	.. ....	.. ....

### PHTHISIS.

This year Consumption has caused the death of 41 persons, as compared with 53 last year, and with 46 during 1907. There is a decrease compared with the numbers of the past two years. This gives a death rate of 0·65 per 1,000, as compared with 0·87 per 1,000 last year, and with a rate of 0·77 per 1,000 during the previous year.

The deaths from "Other Tubercular Diseases" number 31, as compared with 42 last year, and with 45 during the previous year. The total number of deaths from Tuberclle are 72, as compared with 85 last year and with 91 during the previous year. The total death rate from Tubercular Diseases is as

high as 1·14 per 1,000, as compared with 1·39 per 1,000 last year.

If, however, deaths from Marasmus are to be included amongst the Tubercular deaths, and without doubt many of such deaths are due to Tuberclie, then the "Tubercular Diseases" death rate must be increased to 1·52 per 1,000.

During the year your Council have adopted two important provisions for the better controlling of pulmonary tuberculosis.

In June your Smallpox Hospital was opened as a sanatorium for Consumption. There are 26 beds in the institution.

A dining hall and 4 shelters were built, whilst the laundry was enlarged and otherwise improved. These alterations, and the furnishing of the Sanatorium, cost a considerable amount. The staff consists of 2 nurses and 4 maids; in addition there is a porter who lives on the premises.

Up to the end of the year, 31 patients have been admitted from eight townships and from the Urban District of Chester-le-Street, viz., 27 from your own district, and 4 from the urban district.

These patients may be divided into three classes, so far as the stage of the disease was concerned—I, Consolidation of the apex of one lung; II, Consolidation in each apex; III, Cavities and Consolidation, or some of each, in both lungs.

Of Class I there were 12 cases; Class II, 7 cases; and of Class III, 12 cases.

An endeavour was made to get the patients to stay three or four months, or even longer if the case was very promising. Unfortunately, several would not stay longer than one or two months, and the benefits derived during such a short stay could only be fleeting, and all these cases, with one or two exceptions, have become worse since their self-discharge from the Sanatorium.

As to sex, there were admitted 11 females and 19 males.

AGE	Under 5 years.	5 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	Over 65.
	1	5	7	13	5	..	..	..

As to the results, 6 or 19·3 per cent. were discharged not improved, 4 or 12·9 per cent. were improved, and 8 or 25·8 per cent. were very much improved; whilst 13 remained under treatment at the end of the year.

Of those discharged not improved, up to the end of the year, two had died at home, and other two were in the last stages of the disease, and death at an early period was expected.

Of those "improved," two have been lost sight of, one was re-admitted to the Sanatorium, and one is much worse than when discharged.

Of those much improved 4 were females, who are now able to do their usual household work, and 4 were males. Of the men, one has removed from the district, and has been lost sight of, but if he has procured suitable work he is able to earn his daily bread. The other three are at work daily, and their monthly reports show that the benefit derived in the Sanatorium has been maintained.

Without doubt, speaking generally, Sanatorium treatment is beyond the experimental stage, and its results assured, but in your district we are only in the experimental stage. Sanatorium treatment is inclined to suffer from the too-ardent advocacy of it in the past. Patients think that, if they were only in a Sanatorium, speedy cure must follow, forgetting that their disease may date from years before admission. Again, patients require much instruction, and they are most difficult to persuade that rest, above all things, is imperative during periods of rise of temperature, however little that rise may be, and the irksomeness of rest in bed drives many away who are the best subjects for a good result.

For cure, or probable cure, a short stay in a Sanatorium is quite useless. Four to eight or nine months appears to me to be a minimum period of residence in a Sanatorium if a lasting benefit is to be expected.

Even a short stay in a Sanatorium is of advantage to those who stay in the same house as a consumptive, and probably have to sleep in the same room. In a Sanatorium, consumptives are taught the management of their cough, and of the disposal of their sputum, before and after expectoration. If one can only insure the continuance of this care of the disposal of the sputum of consumptives, a great stride has been accomplished in the prevention of future cases.

The great drawback in the treatment of Phthisis in a Sanatorium is the late stage the disease has reached, before admission, and the drawback after discharge is the great difficulty of the dischargetee finding such work as he is able to perform without demanding too much physical exertion.

In your district, in addition to the drawbacks I have mentioned, another and a serious one to the discharged person is his difficulty of finding a house suitable for the state in which

he is. Many patients discharged from a Sanatorium, being unfit for the usual laborious work of a miner, have perforce to take a badly paid job, necessitating the living in a small, probably overcrowded house, of poor habitable condition. Such a condition of affairs quickly undoes all the benefit received from months of sanatorium treatment.

Some organisation should be inaugurated whereby the best means could be provided for procuring work suitable to the discharged sanatorium patient, and if employers of labour would engage with wholeheartedness in this attempt, I am sure that financially, if for nothing else, it would be to their advantage. It would save, at a near future period, the maintenance of this patient and all his family by the public purse.

In addition to the accommodation for Phthisical patients just mentioned, the Guardians in their workhouse have accommodation for several patients suffering from this malady.

The other means for the control of Phthisis adopted by your Council is the Voluntary notification of cases of Phthisis by medical practitioners, and application by your Council is about to be made to the "Board" for permission to pay a fee (2/6) for notification.

Notification, now that there are means for treatment, is, I consider, advisable. The cases of phthisis existing could then be registered, and followed, and a better means would be provided for supervising cases, and for the disinfection of the dwellings of phthisical persons.

#### DEATHS FROM RESPIRATORY DISEASES OTHER THAN PHTHISIS.

The deaths from these diseases (viz., Pneumonia, Bronchitis, Pleurisy, and "other diseases of the Respiratory organs"), number 171, as compared with 158 last year, and with 170 in 1907.

This gives a death rate of 2·72 per 1,000, as compared with a rate of 2·59 per 1,000 last year, and with a rate of 2·87 per 1,000 for 1907. The rate for the administrative County is 2·64 per 1,000.

#### UNCERTIFIED DEATHS.

The number of uncertified deaths this year is 14, as compared with 29 last year. This is equal to 1·48 per cent. of all deaths, as compared with 2·52 per cent. last year.

For England and Wales the uncertified deaths equal 1·30 per cent. of the total deaths.

## INFECTIOUS DISEASES.

During the year infectious diseases have somewhat declined in number, especially Enteric Fever. The number of cases notified is 574, as compared with 621 last year, and 446 during the previous year.

Of the total 574 cases, 379, or 66·02 per cent., were Scarlet Fever, as compared with 57·16 per cent. last year ; 51, or 8·88 per cent., are Enteric Fever, as compared with 16·42 per cent. last year ; 4, or 0·69 per cent., are Puerperal Fever, as compared with 0·48 per cent. last year ; 76, or 13·24 per cent., are cases of Diphtheria, as compared with 14·97 per cent. last year ; and 64, or 11·15 per cent., are Erysipelas, as compared with 10·95 per cent. last year.

The following table gives the statistics for each quarter of this year, and the number of notifications, with the attack-rate per 1,000 of the population, since 1890 :—

First Quarter .....	165	Cases.
Second „ .....	143	„
Third „ .....	131	„
Fourth „ .....	135	„
1890 .....	403	9·61
1891 .....	412	8·15
1892 .....	574	11·14
1893 .....	842	16·15
1894 .....	538	10·14
1895 .....	711	12·75
1896 .....	819	14·26
1897 .....	378	6·63
1898 .....	403	6·87
1899 .....	485	8·13
1900 .....	683	11·27
1901 .....	822	13·51
1902 .....	818	12·95
1903 .....	1,211	18·78
1904 .....	789	11·85
1905 .....	655	9·49
1906 .....	484	6·82
1907 .....	498	6·82
1908 .....	685	9·14
1909 .....	574	9·14

The period of the year during which the greatest number of cases occurred differed from that of the previous year, inasmuch as this year the first two quarters had the greater number of cases, whilst the two last quarters had the less. During last year the opposite was the case. The number of cases per 1,000 of the population is exactly that of the previous year.

As far as was found possible, the cases were visited and instructions given for the prevention of the disease spreading to other families, but without any doubt in the very great majority of cases these instructions are completely ignored. Especially is this so in cases of Scarlet Fever. The virulence of Scarlet Fever is now so mild, that not only are the symptoms in many cases fleeting, but the fatal cases are now so few and far between, that apparently the people have lost all dread of the disease, and neighbours with their infants as frequently visit the infectious patient as they do their healthy friends and it is wonderful how little spread of infectious disease is caused by this. There does not appear to be any means of preventing this wholesale visiting. Whilst ample provision is made in the Public Health Acts for preventing the exposure of infectious persons in public places, there are absolutely no provisions to prevent the opposite, viz., the taking of susceptible children into the houses of infectious persons. Provision is undoubtedly made in Sec. 68 of the Public Health Acts Amendment Act of 1907 to prohibit the visiting of a house after the death of a person from infectious disease but there is no provision made for preventing visiting an infectious patient before death, and unfortunately the house and its contents are equally dangerous, if not more so, before death, as they are after death. Means are urgently required to prevent at least susceptible children from visiting and being in close contact with persons suffering from the commonest zymotic diseases, especially from Scarlet Fever and Diphtheria.

The following table gives the attack rate, per 1,000 of the population, of the different infectious diseases for your district, and also for the administrative County. The population of the County, in the opinion of the County Medical Officer of Health, is probably underestimated ; if that be so, then the attack rate for the County is somewhat too high.

	CHESTER-LE- STREET.	ADMINISTRATIVE COUNTY.
Smallpox .....	0·00	.. 0·001
Scarlet Fever .....	6·20	.. 4·37
Diphtheria and Membranous		
Croup .....	1·21	.. 1·34
Enteric Fever .....	0·81	.. 0·80
Typhus Fever.....	0·00	.. 0·00
Puerperal Fever.....	0·06	.. 0·001
Cholera .....	0·00	.. 0·00
Plague .....	0·00	.. 0·00
Erysipelas .....	1·02	.. 0·84
Glanders in Man .....	0·00	.. 0·00
Anthrax in Man .....	0·00	.. 0·00

## SMALLPOX.

The district has been free from Smallpox throughout the year.

## SCARLET FEVER.

Following the increase in the number of cases of Scarlet Fever last year, there has been a further increase this year of 24 cases. The greatest number of cases in any one township was in Witton Gilbert. Here there accompanied the outbreak of Scarlet Fever also an outbreak of German Measles, and there is every reason to believe that some of the cases of Rötheln were looked upon as Scarlet Fever, and probably *vice versa*. It is possible to mistake the two diseases, one for the other, in certain instances, and a medical man in his zeal, and desire to keep himself legally right, may give the doubt of his diagnosis to Scarlet Fever, and notify this doubtful case as one of Scarlet Fever.

The total cases notified were 379, as compared with 355 last year, and with 238 during 1907. There is thus an increase of nearly 7 per cent., as compared with an increase much greater the previous year.

The attack rate is 6·20 per 1,000, as compared with an attack rate of 5·83 per 1,000 last year, and with an attack rate of 4·02 per 1,000 the previous year. The attack rate for the administrative County is much less, being only 4·37 per 1,000.

Again the type was mild. Only 10 deaths were registered as due to Scarlet Fever. This is a case mortality of 2·63 per cent., as compared with a case mortality of 3·38 per cent. last year, and with only 0·42 per cent. the previous year.

The "striking" distance of Scarlet Fever is not great apparently, and if the visiting between susceptible children and infectious houses could be prevented, I am certain Scarlet Fever would very quickly be reduced, and very much reduced. The exposure of infectious children could, I am sure, be prevented to a very great extent, but in the meantime whatever good which would arise from that source of infection being stopped is more than balanced by the opposite taking place, which at present is daily, or at least whenever the neighbouring mothers desire to spend an hour or more gossiping.

The following table gives the number of cases and the attack rate for your district since 1890, and the second table compares your attack rate with that of the Administrative County since 1894 inclusive :—

YEAR.	NUMBER OF CASES NOTIFIED.		ATTACK RATE PER 1000.
1890	284		5·73
1891	267		5·28
1892	404		7·81
1893	331		6·31
1894	304		5·72
1895	495		8·90
1896	553		9·75
1897	217		3·80
1898	273		4·65
1899	333		5·40
1900	527		8·69
1901	631		10·37
1902	554		8·87
1903	872		13·52
1904	458		6·88
1905	383		5·55
1906	223		3·14
1907	264		3·61
1908	390		5·20
1909	379		6·20

The following table gives the respective rates for the County and your district since 1894 :—

YEAR.	DISTRICT.	COUNTY PER 1000.
1894	5·72	5·54
1895	8·90	6·62
1896	9·75	5·88
1897	3·80	3·45
1898	4·65	4·11
1899	5·40	6·17
1900	8·69	7·47
1901	10·37	7·97
1902	8·87	7·08
1903	13·52	6·90
1904	6·88	5·74
1905	5·55	4·24
1906	3·14	3·18
1907	3·61	2·68
1908	5·20	3·04
1909	6·20	4·37

### MEASLES.

This disease has not been at all prevalent this year, though several of the districts have been invaded, which suggested the closing of the Infants' Departments in 22 Elementary Schools. The number of deaths this year is 12, as compared with 15 last

year. This gives a death rate of 0·19 per 1,000, as compared with a death rate of 0·24 per 1,000 last year. The death rate for the administrative County is 0·37 per 1,000, and for England and Wales the rate is 0·35 per 1,000.

#### ENTERIC FEVER.

This year Enteric Fever has not been epidemic, as was the case last year. The number of cases notified is 51, as compared with 102 last year, and with 23 during 1907. The climatic conditions of 1909 resembled those of 1907, both being very unfavourable to the growth of the specific organism which causes Enteric Fever.

The attack rate this year is 0·81 per 1,000, as compared with an attack rate of 1·51 per 1,000 last year, and with a rate of 0·52 for 1907. The rate for the administrative County is 0·80 per 1,000.

The number of deaths has also considerably decreased, there being only 7, as compared with 15 last year. The case mortality is 13·72 per cent., as compared with a case mortality of 14·70 last year.

The following table gives the number of cases, and the attack rate per 1,000, for each year since the adoption of the Notification Act :—

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE PER 1000.
1890	53	1·26
1891	71	1·40
1892	69	1·34
1893	353	6·77
1894	111	2·09
1895	72	1·30
1896	108	1·88
1897	33	0·57
1898	39	0·66
1899	57	0·95
1900	57	0·94
1901	71	1·16
1902	67	1·07
1903	32	0·49
1904	48	0·71
1905	78	1·13
1906	65	0·91
1907	23	0·31
1908	112	1·49
1909	51	0·81

In Table IX will be seen the distribution of the disease so far as townships and months of the year are concerned.

In each case the probable cause has been enquired into. In no case has the milk supply been the cause of the disease. In 13 cases the cause of the disease was a previous case in the house, in some instances unrecognised until other cases appeared. In a few the case, on further observation, was found not to be Enteric. In four cases the cause was evidently contaminated shellfish (mussels).

With respect to the water supply, 15 or 29·41 per cent. used either Sunderland & South Shields Company's water, or Herrington Water, both of which are drawn from the limestone, and are adjacent waters, probably intermixing in the substrata from which they are drawn. Of these 15, two were evidently secondary cases in the same households, and three had a distinct history of having eaten mussels at a date consistent with the probable day of infection. The other cases within this water area are possibly due to the last year's cause. The later cases are most likely sporadic. The remaining cases were apparently sporadic ; at least no probable cause could be elicited.

#### DIPHTHERIA AND MEMBRANOUS CROUP.

There has been a further fall in the number of cases of Diphtheria if this year be compared with last year, viz., 76 cases this year, as compared with 93 cases last year, and with 110 during the previous year. The attack rate is 1·21 per 1,000, as compared with an attack rate of 1·52 per 1,000 last year, and with a rate of 1·84 during the previous year. The attack rate for the administrative County is 1·34 per 1,000.

The disease was general in all your more-thickly populated townships, but was nowhere epidemic. In no case could a milk supply be suspected.

The following table gives the number of cases, and the attack rate per 1,000, for each year since the adoption of the Notification Act :—

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE PER 1000.
1890	6	0·11
1891	15	0·30
1892	27	0·52
1893	29	0·55
1894	15	0·28
1895	16	—
1896	57	1·00
1897	21	0·36
1898	16	0·27
1899	10	0·16
1900	17	0·28
1901	33	0·54

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE PER 1000.
1902 .....	64 .....	1·02
1903 .....	128 .....	1·98
1904 .....	130 .....	1·95
1905 .....	80 .....	1·15
1906 .....	112 .....	1·58
1907 .....	128 .....	1·75
1908 .....	104 .....	1·38
1909 .....	76 .....	1·21

Diphtheria was more or less in evidence all over the County.

I believe that school life is the chief cause of the spread of Diphtheria, but I do not think that the schoolroom enters much, if any, into the dissemination of the disease, the disease spreading directly from child to child, and further, that close contact is necessary before one child affects another. This is evident from the fact that there are only 3 cases secondary to a previous case in the same house. This only gives a percentage of 4·00. This low rate may be accounted for by either the attenuation of the infecting organism, or to the use of Antitoxic Diphtheria Serum, or to both. It is, however, very evident that the fatal results of Diphtheria have lessened in number during the past 30 years.

As in previous years, the greatest number of Diphtheria patients are very young children. Taking the age periods of Table III of 76 cases, 2 cases, or 2·63 per cent., are under one year old; 30, or 39·45 per cent., are between 1 and 5 years old; and 39, or 50·13 per cent., were between 5 and 15 years of age. The great majority of those between 5 and 15 years were children between 5 and 7 years; indeed, no fewer than 73·5 per cent. of all the cases occurred during the year amongst children under 8 years old. The number of deaths this year is 13, a case mortality of 17·10 per cent., as compared with a case mortality of 9·67 per cent. last year, and with a case mortality of 13·63 per cent. during the previous year.

All the cases of Diphtheria were treated at home, and this unsatisfactory condition of affairs results from the want of hospital accommodation for Diphtheria. Many applications were made for admission of Diphtheria cases, but all had to be refused owing to the hospital being able to isolate at one time only two separate infectious diseases.

The following table gives the number of cases of Diphtheria each quarter, with the number of deaths:—

First Quarter	35	cases notified,	7	deaths, or 20·0 per cent.
Second	„	9	„	1 „ „ 11·1 „
Third	„	14	„	2 „ „ 14·2 „
Fourth	„	18	„	3 „ „ 16·6 „

### PUERPERAL FEVER.

The number of deaths this year is 7, as compared with 6 last year, and with 6 during the previous year. The number of cases of Puerperal Fever notified is 4, as compared with 3 last year.

### WHOOPING COUGH.

During the year, 28 deaths from Whooping Cough have been registered, which is considerably fewer than last year, when 43 deaths were registered, but still considerably more than in 1907, when only 4 deaths were registered. This year only 8 townships were affected, whilst last year 12 townships recorded cases. The townships in which the greatest number of deaths occurred were Pelton (6), Lumley Great (5), Uswoth (5), and Washington (5). Too little attention continues to be paid to this infantile disease. It is much more fatal than generally thought, and causes many permanent changes in the lungs of the young victim. All cases of Whooping Cough should be rigorously excluded from school, yet the long period of infectiousness is just the cause which operates against exclusion. Parents careless of other children, and school authorities careful of the "grant," think that a child able to run about, and who may not appear to ail much, should be at school, forgetting that the infectious child in the open air is less dangerous to its playmates than the same child in school, in close contact with its fellow scholars.

### DIARRHŒA (ZYMOTIC ENTERITIS).

The cold year through which we have just passed has been very inimical to the germ of Diarrhœa, and hence the small number of fatal cases in comparison with the number of last year.

This year the number of deaths is 42, as compared with 127 last year, and with 32 during 1907, which again was a cold year, off and on, similar to 1909. Excluding townships with a population under 2,000, the death rate was highest in Pelton (1·78), Washington (1·54), Uswoth (0·77), and Witton Gilbert (0·72), whilst in three townships having a population of 2,000 or upwards there were no deaths from Zymotic Enteritis. If population is not a dividing line, then 11 townships had no deaths from Diarrhœa.

I entered fairly fully into the cause of Diarrhœa in my last year's report, and I do not consider it necessary to recapitulate the remarks I then made.

## DISINFECTION OF HOUSES, ARTICLES OF CLOTHING, &c.

The question of disinfection is in the same position as it has occupied for years, viz., the passing of several resolutions to disinfect, the provision of nothing to carry out these resolutions. A few houses have been "formalined," and I understand that the Education Authority are using Formaline Spray in several schools, especially after the prevalence of epidemic disease amongst the scholars of any school.

Without doubt a vast amount of money is spent throughout the County every year in the disinfection, so called, of houses and schools, but for some time doubts appear to have entered the minds of several competent observers as to the utility of the present practice, and opinion appears to be veering to non-disinfection, as at present practised, owing to the belief of its uselessness.

It is quite recognised that a person suffering from Scarlet Fever is infectious and capable of infecting others for quite a long period, even for 14 weeks or longer, provided there be fairly close contact with a susceptible child. Now, if there were evidence that in a household of susceptible children one attacked with Scarlet Fever frequently or, rather, almost always caused secondary cases to, say, the end of the known period of infectiousness, and that even after the infectious period was passed frequent secondary cases occurred in houses wherein an infectious child had been, then disinfection of the house and contents would be highly desirable.

I am not prepared to say what percentage of secondary cases of Scarlet Fever appear after the seventh week of the primary case throughout the County generally, but my records show that it is the exception to have a secondary case in any house after the end of the second week. If that be the general experience of Medical Officers of Health, it would tend to prove (1) that the infection of Scarlet Fever tends to lessen in virulence daily after the end of the second week, or that susceptible children are less susceptible after weeks of contact with infection, and (2) that clothing and the house generally do not retain their influence, and that disinfection is not required. That assumption appears somewhat heretical, but it is from the paucity of secondary cases recorded in my registers on which I base these observations.

Diphtheria is much the same, but probably in this disease the increasing use of Diphtheria antitoxic serum is assisting in more rapidly causing attenuation and death of the Bacillus than formerly was the case, when left very much to its extermination by the antitoxin formed in the tissues of the host. I do not

think that the same remarks apply to Phthisis and Enteric Fever. Here the continuance of the disease is much longer, and in Phthisis the house and clothing become more saturated. The patient dying from Phthisis is much more confined to a close and stuffy house than the convalescent from Scarlet Fever or Diphtheria, and I consider that clothes from these diseases should be disinfected, and that the houses should be more effectively cleansed with plenty of soap and water than is at present done.

### SCHOOLS.

During the past three or four years several new schools have been built in the district, and others are under construction, so that the overcrowding which has been marked for several years is disappearing. All the new schools are provided with a water-carriage system of excreta removal.

During the year new schools have been opened at Harlow Green, township of Lamesley, with 476 places, and at Pelton, 800 places, and Grange Villa, 592 places, both in the township of Pelton. In Pelton township the old schools at Perkinsville and Pelton (Infants) have been closed. In Washington township a department, 400 places, for girls has been opened during the year, and temporary accommodation (80 places) has been provided in Usworth township.

The following school accommodation is being provided. In Witton Gilbert township there will soon be opened a large school having 300 places for boys, 300 places for girls, and 300 places for infants. It is, however, the intention to close two of the present schools on the opening of the new school. New schools are also being erected at Beamish, 450 places, Fatfield, 250 places, and at Washington, 360 places. It is the intention to close one of the old schools at Washington Village shortly.

All the schools in the district are provided with an ample supply of wholesome water, drawn from the mains of the several public water companies. In most of the schools the sanitary condition of the out-offices is good, but in a few of the older non-provided schools the sanitary condition is not good. At Burnmoor Mixed School, a non-provided school, the present ashpit-privies require to be converted to a water-carriage system, and Pelton Non-provided should also be converted.

With respect to the action taken to prevent the spread of infectious disease, I send to the Clerk of each District Education Committee weekly a list of all cases of infectious disease notified to me, whether any child from any one infected house attends or does not attend school. The Clerks send the list to each attendance officer, who thus becomes acquainted not only with

infection in the houses of scholars, but in all houses. Formerly I sent notices to the schoolmasters, but I found it difficult to visit every case, which was necessary to ascertain the school which the children attended, before I could notify the master.

It appears, from the information I have, that my present system is better than my former. On the notice is given the average time children from infected houses should be excluded.

The Medical Inspection of school children in the district is undertaken by the Education Authority, in this case the County Council.

#### WATER SUPPLY.

The whole area gets a plentiful supply of water, which generally speaking is very wholesome. Most of this is upland, but the supply to the townships of Washington, Burnmoor, Barmston and Harraton is chiefly deep-well water supplied by public companies. This deep-well water is not filtered and, coming from the limestone, which is well-known to be markedly fissured, is potentially unsafe, owing to the fact that it may be contaminated at any time with surface pollution, entering through one or more of the larger fissures. The working of the coal under this limestone must be perpetually increasing and altering the number and position of these fissures.

The Paper Mill, Urpeth (9 houses), is now supplied with Weardale & Consett water, and Bewicke Main Colliery (84 houses), up to now supplied from a local feeder, which has nearly disappeared, will shortly be supplied from the mains of the Weardale & Consett Water Company with an upland water.

The Weardale & Consett water is plumbo-solvent, but deleterious effects are prevented by the Water Company adding quicklime in the proportion of  $\frac{3}{4}$  cwt. of lime to the 1,000,000 gallons of water as the water leaves the Company's reservoirs. The Newcastle & Gateshead Company's water is naturally a hard water, and is not plumbo-solvent, nor yet are the waters drawn from the limestone source for the eastern portion of your district.

The upland water and the Newcastle & Gateshead water are filtered. The water supplied by the other companies is not filtered. There is, generally, sufficient quantity supplied by all the companies. The storage capacity of the Lambton Collieries Company is only 4 days, and even with pumping machinery in duplicate this quantity in reserve appears to me deficient.

## REMOVAL OF HOUSE REFUSE.

In most of the townships the scavenging is in the hands of contractors, and in most places gives the Sanitary Inspectors plenty of work supervising its regular and efficient performance. In the Washington district it was found necessary to take the work from one of the scavengers owing to the manner in which it was performed. In the other areas of this district the work has been fairly well done. In this district (Mr. Harrison, Inspector) "6,395 special inspections were made during the year. Much neglect occurred at Washington Village."

In the Birtley division Inspector Brown says, "this work has been very well done during the year. A few cases of neglect have been notified in Division I (Sunniside), and VII (Eighton Banks), where a more suitable method of doing the work appears to be necessary. In Ouston parish, where the houses are scavenged by the owners, the work has been better done than in previous years." With regard to Witton Gilbert area Mr. Swaddle says, "The scavenging on the whole has been better attended to during 1909 than in past years, though the contractors for the villages of Edmondsley, Witton Gilbert, and Lumley, where the contract prices are low, continue to give trouble by neglecting the work from time to time."

The following table gives the cost of scavenging for the year 1909, with the approximate cost per house for the same period :—

TOWNSHIP.	GROSS COST PER ANNUM. £    s.    d.			APPROXIMATE COST IN PENCE PER HOUSE PER ANNUM.
	638	0	0	
Birtley .....	638	0	0	96·0
Burnmoor .....	96	12	0	84·0
Edmondsley .....	173	5	4	87·9
Harraton .....	305	7	5	108·1
Lambton .....	14	0	0	108·0
Lamesley .....	493	1	0	96·9
Lumley Great .....	134	19	0	68·9
Lumley Little .....	76	10	8	82·0
Pelton .....	690	9	0	99·2
Plawsworth .....	115	4	0	96·0
Urpeth .....	288	7	0	97·4
Usworth .....	540	17	6	91·9
Washington .....	561	16	9	95·3
Witton Gilbert ....	582	10	4	93·8

Of the total population of 62,739 there are over 59,600 scavenged by contract, or nearly 95 per cent. The remainder consists of Company's houses, two being collieries, and one a chemical company's houses, and in all cases the work is generally efficiently performed.

## SANITARY IMPROVEMENTS ACCOMPLISHED DURING THE YEAR, AND REQUIRED IN THE NEAR FUTURE.

A very large amount of improvement work has been effected during the year, chiefly by the untiring efforts of your Inspectors. The inspectorial work has been constant, efficient, and tactful, the result being many new ashclosets erected in place of old insanitary ashpits; backyards cemented, new house drains laid, and a very large number of houses repaired.

In addition, the Sanitary Inspectors now act as building inspectors, are carefully supervising the proper construction of drains, and are insisting on the buildings being erected in strict conformity with the plans approved by the Council.

There is, unfortunately, much reconstruction work still to be undertaken, especially in the conversion of privy-ashpits to ash-closets, the paving of insanitary back yards, and the ever-continuing crusade against insanitary houses due to neglect in many cases, and to the lapse of time in others.

### BARMSTON.

In my last year's report I called attention to the condition of many of the houses in Pattinson Town in this township, all of which are owned by the Washington Chemical Company. The houses in question, 92 in number, are in two rows, one being composed of one-storey buildings, 30 in number, and the remainder (31 pairs) being two-storey back-to-back houses.

The one-storey houses are more or less damp, owing to the absence of a damp-proof course, and to the surface water not being readily removed from their foundations. The owner was appealed to, and, after a meeting, at which I pointed out to him what appeared necessary, he most readily agreed to the suggestions. These suggestions were numerous and costly to perform.

With reference to the one-storey houses, the alterations consisted of lowering the soil to below the foundations where necessary; to drain the subsoil; to place a cement footpath along the front of the whole row; to put a water-tap in each house; and to pull down the old open ashpit-privies, and to build in their place new ash-closets. The back-to-back houses were to be re-roofed and made through houses, with proper back-yards and ashclosets in the place of the present ashpit-privies. A water tap to be placed inside each house instead of the present outside tap for a number of houses. All the houses to be provided with a separate, properly trapped drain. The work is proceeding rapidly, and at the end of the year 20 of the

back-to-back houses had been altered to through houses, and tenanted. These are now four-roomed houses; formerly they were 2 two-roomed houses in flats.

The readiness with which Mr. Newall, representing the Washington Chemical Co., undertook the improvement of these houses, and the expeditious manner in which the work is being done, in the spirit as well as the letter of the understanding, reflects great credit on his firm, and is certainly an object-lesson which might be learned with advantage by the whole country.

The tenemented house at Barmston Hill Top continues in the same insanitary state, but the owner has promised to improve it, as suggested, and I understand the work is about to be commenced.

In addition to these improvements, 9 more ashclosets in Pattinson Town have replaced as many ashpit-privies of the old insanitary stamp.

#### BIRTLLEY.

At the Wash Houses (16 houses) the water taps have been placed inside the houses, and the outside standpipe taken away. Elsewhere several houses have been closed as unfit for human habitation, and numerous repairs to houses have been effected, including the cementing of 19 yards, relaying 11 drains, 10 houses provided with new spouts, and the construction of 16 ashclosets and 3 water-closets in place of ashpit-privies. Seventeen streets, having a total length of 904 yards, have been made under the provisions of the Private Street Works Act of 1892. Whilst a very large proportion of the streets have been properly made, several still require making, and at present 13 streets, measuring 1,052 lineal yards, are being made under the provisions of the same Act.

#### HARRATON.

Ninety-three ashclosets were built in this township during the year to replace as many ashpit-privies. These closets were built chiefly by the Lambton Coal Co., at Chapel Row and Office Row, Harraton Colliery, Pelaw Grange Terrace, also at High Rickleton.

This is a township of old houses, many of them badly constructed, damp, and small. Such houses are at Nova Scotia, and the Square, Fatfield. Unless the owners are prepared to re-construct, or rather to raze and rebuild a number of the houses at the places named, and even elsewhere, it appears to me that your Council will have to exercise your powers and close many of the houses complained of. The houses at the Low Flats (12) are damp, and in their present state unfit for

habitation. The owner agreed to close them, but afterwards wished to try the application of a bituminous substance to the walls, in order to prevent dampness. I saw no reason to object to such a course, and the question of closing is in abeyance until the result of this treatment has proved useful or useless. In this township the first lot of new street work has been undertaken, and the preliminary notices affecting streets measuring 325 yards have been issued.

#### BURNMOOR.

In this parish there are also plenty of poor houses, such as the Long Row, Burnmoor, part of the Chapel Row, New Lambton, and several other places in the same township.

Improvements, however, have been fairly numerous during the year, and consist in the alteration of ashpit-privies to ashclosets, and the paving of back yards. All the back yards at Railway Terrace, and "D" Pit Row, New Lambton, have been cemented and new ashclosets built. Altogether 22 ashclosets have been built, and 15 yards cemented.

All the houses (8) in Old Engine Row, New Lambton, have been pulled down or are untenanted, and up to the end of the year four new houses have been erected on the sites of as many of the old ones, and the other four houses are under construction. At Elba, at least one house has been rebuilt. At "D" Pit Square, New Lambton, eleven very poor houses have been closed during the year, and respecting four others the owner has promised repairs to meet the suggestions of your officers for improving the houses in question.

#### COCKEN.

Most of the houses in Grainger Terrace, mentioned in my last year's report, have been repaired and are occupied.

In this township 11 ashclosets have been built in place of ashpit-privies.

#### EDMONDSLEY.

At Edmondsley village many old ashpit-privies should be demolished, and ashclosets built in their stead.

Many of the streets are unmade, and are in a deplorable condition during wet weather. All the streets should be properly made under the provisions of the Private Street Works Act of 1892.

Unless streets are properly made under this Act, and taken over by, and maintained by, the Council, after being made, any repairs made by the owners are, by experience, found useless. The newly-made road is neglected, and a time comes

sooner or later, generally sooner, when the street is in the same bad condition as it was before the owner spent money in making it.

#### LAMESLEY.

In Kibblesworth village the re-construction of the old houses continues, though very slowly. During the year, 8 houses have been re-constructed here and 1 at Tinkler Row. In other parts of the township 10 ashclosets and 2 water-closets have been erected. The sewer to drain the north-eastern portion of Eighton Banks is still under construction. When that is finished the whole of this township, save odd houses here and there, will be properly drained. As I have mentioned elsewhere, Bewicke Main will very shortly have a plentiful supply of upland water from the Consett & Weardale reservoirs.

The water supply to Kibblesworth is, in the meantime, apparently sufficient in quantity, but as its source can be polluted, it is impossible to say that it is a perfectly safe supply, the more especially since it is not filtered.

Many ashpit-privies in the township still require to be replaced by ashclosets, especially at Team Colliery, where yards also should be provided for the houses. The agent of this property is considering the advisability of building ashclosets and cementing the yards of each house, and I hope that in my next report I may be able to say that this work has been done.

#### LUMLEY GREAT.

The chief collection of houses in this township is Lumley Village, an old village, and consequently the houses, for the most part, are not in good habitable condition. This fact has been pointed out to the agent of the Lambton Colliery Co., to which the greatest number of the houses belong, and he has been urged to rebuild the worst of the houses at an early date, and already some have been built, and others are in re-construction. Equally bad are the houses at the George Pit, Shop Houses, and other isolated houses, all belonging to the same company.

The sewerage system of the village is not in an efficient state, and I consider that a complete scheme of sewerage should be adopted, and that it should be either completed forthwith, or the work might be spread over a few years. There are several of the streets in a very bad condition, especially Love's Lane and Back Lane, and it is imperative that these and other streets should be improved at a very early date.

At Lumley Terrace the whole of the ashpit-privies require demolition, and the houses there should be provided with a separate back-yard and ashcloset. In this township during the

year nine of the old houses have been pulled down and re-built, 24 houses have been repaired and made habitable, and 7 ash-closets have been built.

### LUMLEY LITTLE.

Little can be said respecting this small township, as only slight scope for improvement exists. Two new drains have been laid, and one yard repaired during the year.

### OUSTON.

Following the sewerage of this village, all the houses have been provided with new drains (153) and properly-trapped gullies. The ashpit-privies still exist, and their abolition and the substitution of ashclosets is an improvement I cannot too strongly urge on the owners.

The sewage from the villages of Ouston, Perkinsville, and Ouston Colliery is to be treated in holding-up bacteria beds, the construction of which is just about to be commenced. In the meantime the sewage is flowing into the Rowletch burn, into which it has gone from the time that the houses were erected.

### PELTON.

The sewerage of Club Row, and adjacent houses, Pelton Fell, mentioned in my last year's report, is not yet commenced, but I understand your Surveyor is busy with the preparation of a scheme for this necessary work. Nothing has been done to improve the ashpit-privies at West Pelton, nor yet have any improved footpaths been provided to the houses. I consider that better footpaths should be made for the whole of West Pelton, and, unless the owners move in the matter at an early date, I consider that your Council should enforce the provisions of the Private Street Works Act.

In other parts of the township 41 ashclosets and 4 water-closets have been built in place of ashpit-privies previously existing. In Pelton Village 2 back-to-back houses have been made through houses, and 2 houses closed. In other parts of the township 38 houses have been extensively repaired, 24 yards cemented, and 70 new drains laid.

In the parish 3 streets (356 yards) have been made during the year under the provisions of the Private Street Works Act, and at Grange Villa 20 streets, with a total length of 3,529 yards, are about to be commenced under the provisions of the same Act. There are other streets in this township to which similar attention should be paid at an early date.

### PLAWSWORTH.

Nettlesworth Village is much in the same condition as when last reported on, save that 3 houses in the Front Row have been raised. These 3 houses are now very good four-roomed houses, with good cemented yards and modern ashclosets. In other parts of the township one house has been generally repaired, and 11 ashclosets built. Many existing ashpit-privies should be pulled down, and ashclosets built in their place.

### URPETH.

The insanitary ashpit-privies mentioned in my last year's report at Quality Row, etc., remain. At Urpeth Village 14 ashclosets have been built.

In the township are quite a number of houses which require raising so that the upper rooms shall have a height of 8 feet over all. The houses in question are at Hammer Square, Eden Row North and Eden Row South, Eden Square, and Park Nook, but as regards the latter two places, probably the best thing is to close the houses.

A committee of your Council visited the houses named, and made certain suggestions to the owner's agent, but up to the end of the year nothing has been done to carry out the suggestions of your Committee. In the parish there are several of the streets much requiring to be made, and at Co-operative Villas the "Board" has sanctioned a loan for the purpose of making the streets there. The total length of the streets in question is 1,881 yards, and the Surveyor is now preparing plans and estimates for the necessary work. The street leading from the Workmen's Club to the West end of Thornton's Fold is equally requiring to be made good. It is really in a deplorable condition, and children going to school cannot pass along this street dry-footed.

### USWORTH.

Not so much work has been accomplished in this township during the year as might have been. However 37 ashclosets have been built during the year, chiefly at Front Street, Usworth Village, and Railway Terrace, Usworth Colliery. In addition the houses at Railway Terrace (30) have been improved by the provision to each house of an enclosed cemented backyard. The houses in the Middle High Row, Usworth Colliery, continue to be tenanted, though their sanitary condition becomes daily worse, but I understand the owners are about to proceed with a building scheme, which provides for the closing of these houses (45) at an early date.

In many parts of this township better streets should be provided, and at the present time 35 streets, with a total length of 2,068 yards are being made. The remaining streets in greatest need of repair are Railway Terrace, Penshaw View, and Waterloo ; and footpaths should be provided to the houses at the Mount, and to that road which leads from the east end of the Quarry Row to the Colliery Crossing. During the year the Highway Committee made the road from this crossing to Waterloo, which is a very great improvement.

Three tenements in the Old Hall, Usworth Colliery, have been closed, and the remaining two should suffer the same fate forthwith.

#### WALDRIDGE.

This village has still open channels for the conveyance of its sewage. They are in fair order. Two houses known as the Day Hole have been closed, being unfit for human habitation.

#### WASHINGTON.

There have been numerous improvements effected in this township during the year, but there are many more to be undertaken.

Twenty houses have been closed as unfit for human habitation at Engine Square (4), Old Rows (12), Firebrick Cottages (3), and Village Lane (1). There are, however, a goodly number remaining which should be closed, especially the remaining nineteen in Old Row.

Twenty-nine ashclosets and 1 water-closet have been built, to replace ashpit-privies, chiefly at Spout Lane, Lambert's Place, and Village Lane.

The ashpit-privies at Shaftoe Terrace should be removed, the yards of these houses should be cemented, and the closets erected in the yards, and the back street should be properly made at an early date.

The 4 houses at Washington Staithes recently rebuilt, and Jubilee Terrace (4), are not yet provided with water inside the houses, but require to go some distance to an outside stand-pipe. Your Council has, however, resolved to put the water into the houses, and to recover the cost of so doing from the owner in the usual manner.

The back-to-back houses in Speculation Place, New Washington, are not yet altered according to your Council's requirements. The owners have delayed the work from time to time, and unless the alterations be completed forthwith, it will be necessary for your Council to exercise your powers under the provisions of the Housing Act of 1909, in order to make these houses habitable.

The streets, as I mentioned in my last year's report, are in a very sloppy and execrable state. Action has been taken with respect to 49 streets, with a total length of 3,314 yards. The making of these streets is now in abeyance, owing to certain objections having been lodged by the frontagers of some of the streets, and an early date has been fixed for the magistrates to hear these objections. A further batch of streets should be at once scheduled, because the delays from one thing and another are so tedious that months must elapse before anything can be done to get rid of the mud, now inches deep, in most of the unmade streets in this township.

#### WITTON GILBERT.

In this township a large amount of improvements have been carried out during the year. Two houses have been closed, and 13 houses have been rebuilt or heightened, whilst other 4 have been generally repaired. Eight back-yards have been cemented, 5 have been re-constructed, which includes cementing, 2 houses supplied with an inside water tap, and 52 ashclosets built.

With respect to the streets in the township, application has been made to the Board for sanction for a loan to make 3 streets, with a total length of 652 yards.

---

The following is a summary of the work done in the district during the year, most of which was accomplished by the tact of your officers and the good sense of the owners, so that hardly in any case had the Council to issue its orders for the necessary work to be done.

Many yards of sewers have been constructed; 369 ash-closets and 18 water-closets built; 130 backyards cemented, and 48 yards repaired; 326 drains to houses, some of which were to houses which were not previously provided with a separate drain; 50 houses have been rebuilt or raised; 65 houses have been closed as unfit for human habitation; and 4.492 miles of private streets made or being made under the Private Street Works Act.

---

#### DAIRIES AND COWSHEDS.

Approximately there are 150 cowsheds, and 1,020 cows kept in the district.

The cowsheds have been regularly inspected, and improvements have been effected at 11, consisting in laying on a good water supply, and repairs to floors.

Speaking generally the milk produced within the district is of good quality. There is little milk brought into the district. The byres are being better kept than formerly, which, in the great number of cases, is entirely the result of your inspectors' work in connection with them. With the exception of cowshed inspection, there is very little otherwise can be done. The Council cannot legally incur any expenses for the purpose of bacteriologically examining milk, and in consequence it is impossible to say how much tuberculous milk is sold in the district. That there is more or less, one knows, but how much, there are no means at my disposal at present by which I can detect such infected milk.

I have authority from the Council to call in a Veterinary Inspector in cases of suspected tuberculosis in a cow.

#### COMMON LODGING HOUSES.

There is only one common lodging house in the district, and it is in Birtley. It is licensed for 24 males. It is kept in good order, though the house is not suitable for a common lodging house, and it would have been better had the house never been licensed for such.

#### SLAUGHTER HOUSES.

With one exception all the slaughter houses in the district are small, killing one or two beasts, one to five sheep, and a pig weekly.

Slaughtering takes place chiefly on Wednesdays and Fridays, and at such times of the day as would be most suitable for the slaughterer. Few of these places have been erected with any care as to the best method for the purpose in view, and probably several of the older ones were not originally built for slaughter houses.

Your Council have now bye-laws regulating to some extent these places, and I am sure that after the lapse of a short time the provisions of these bye-laws will produce gradually a better condition in these places, and one more adapted for slaughtering purposes. Owing to the times of slaughtering differing so much, there is no systematic inspection of slaughter houses, and I do not see how any such inspection can be accomplished.

There are 39 slaughter houses in the district, and collectively on an average they kill 87 beasts, 170 sheep, 60 pigs, and 52 calves weekly.

There have not been any carcases or parts of carcases seized during the year on account of the presence of tuberculosis.

At the present moment none of the Sanitary Inspectors possess a special certificate in Meat Inspection.

#### UNHEALTHY DWELLINGS.

A number of insanitary houses have been closed during the year, but not quite so many as during last year ; yet during the past five years no fewer than 300 houses have been closed, in all cases by agreement with the owners.

The collieries in the townships of Usworth and Washington have not built any houses this year, though more houses are required in that district. It is, however, said that Springwell Colliery is about to commence building some houses at Eighton Banks, and I am informed that Usworth Colliery is also about to commence with their scheme to replace the Middle High Row, and other not-habitable houses belonging to that colliery. In other parts of the district, especially at Fatfield and the Lumleys, the Lambton Coal Company intend to rebuild some of the old houses now occupied by their workmen. There are nearly 400 houses belonging to this Coal Company situated at Lumley Village, Brecon Hill, Burnmoor Village, Fatfield, and elsewhere in isolated twos and threes, which are really unfit for human habitation, and require re-building. It is necessary for this Company to formulate an extensive scheme of reconstruction, and to renew their old houses at the rate of at least 40 houses per annum. Even at that rate, 10 years must elapse before their really bad houses can be eliminated, and by that time several more will be ready for pulling down.

In the Washington districts many houses require demolition, viz., the remaining 19 in the Old Row, Biddick Row, at Washington ; Taylor's Row, West side of the Square, Usworth Colliery ; and about 20 houses at Eighton Banks. These are the chief accumulations of houses involved, but there are many isolated houses in an equally bad condition. The scarcity of houses demands slow elimination, and if one can have an equal number closed during the next quinquennium to that closed during the past quinquennium, a large number of the really bad houses will have disappeared.

The following table gives approximately the number of houses built and occupied during the year, and the number closed :—

TOWNSHIP.	NO. OF HOUSES BUILT AND OCCUPIED.	NO. OF HOUSES CLOSED.
Barmston . . . . .	—	13
Birtley . . . . .	108	7
Burnmoor . . . . .	5	11
Harraton . . . . .	7	—
Lamesley . . . . .	24	4
Lumley Great . . . . .	1	1
Lumley Little . . . . .	41	—
Pelton . . . . .	28	2
Urpeth . . . . .	13	—
Usworth . . . . .	20	3
Waldridge . . . . .	—	2
Washington . . . . .	88	20
Witton Gilbert . . . . .	87	2
	—	—
	422	65

### THE HOSPITAL.

During the year 123 patients have been admitted, as compared with 124 patients last year. Of these 98 belonged to the Rural District, and 25 belonged to the Urban District of Chester-le-Street.

Of the 123, 86 were admitted as suffering from Scarlet Fever, and in all cases the diagnosis was correct; and 37 were admitted as suffering from Enteric Fever. In 34 of these cases the diagnosis was correct, 2 cases proved to be Pneumonia, and 1 case some form of Septicæmia. Of all the cases of Scarlet Fever and Enteric Fever notified, referring to the rural district only, 15·3 per cent. of the Scarlet Fever and 39·2 per cent. of the Enteric Fever cases were admitted to hospital, and of all cases notified 17·0 per cent. were admitted as compared with 18·1 per cent. last year.

The number of patients discharged recovered were, 84 cases of Scarlet Fever, 39 cases of Enteric Fever, and 2 cases of Diphtheria. Two patients died from Scarlet Fever, 1 patient died from Septicæmia, and 3 from Enteric Fever. The case mortality from Scarlet Fever was 2·33 per cent., and from Enteric Fever was 10·80 per cent., of admissions. In comparing the hospital case mortality of these two diseases with the same disease treated at home, one has for Scarlet Fever 2·33 per cent. hospital, and 2·90 per cent. for home; for Enteric Fever 10·80 per cent. for hospital treatment, and 23·8 per cent. for home treatment.

For patients who recovered, the average number of days in hospital was 64.76 for Scarlet Fever, as compared with 61.3 days last year, 74.18 days for Enteric Fever, as compared with 58.5 days last year, and 32 days for Diphtheria.

The average number of patients daily resident during the year has been 22.8, as compared with 18.23 last year.

	AVERAGE NO. OF PATIENTS DAILY RESIDENT.
First Quarter .....	22.12
Second „ .....	24.40
Third „ .....	20.87
Fourth „ .....	22.92

The following table gives the number of cases admitted to the Hospital since July, 1895, and other details :—

YEAR.	NO. OF PATIENTS ADMITTED.	AVERAGE NO. DAILY RESIDENT.	NO. OF DEATHS.	PERCENTAGE OF DEATHS TO ADMISSIONS.
1895	.... 37	.... 9.00	.... 0	.... 0.00
1896	.... 121	.... 15.30	.... 3	.... 2.48
1897	.... 53	.... 9.58	.... 2	.... 3.77
1898	.... 104	.... 14.17	.... 3	.... 2.88
1899	.... 136	.... 20.22	.... 10	.... 7.35
1900	.... 116	.... 18.35	.... 4	.... 3.44
1901	.... 115	.... 16.05	.... 8	.... 6.97
1902	.... 104	.... 13.65	.... 8	.... 7.69
1903	.... 133	.... 17.41	.... 6	.... 4.51
1904	.... 56	.... 5.25	.... 2	.... 3.57
1905	.... 1	.... 0.00	.... 0	.... 0.00
1906	.... 53	.... 6.76	.... 2	.... 3.92
1907	.... 43	.... 5.70	.... 2	.... 4.65
1908	.... 124	.... 18.23	.... 11	.... 8.87
1909	.... 123	.... 22.80	.... 6	.... 4.87
	—	—	—	—
	1,319	12.56	67	5.07

On the last day of the year there remained in the Hospital 14 cases of Scarlet Fever, and 5 cases of Enteric Fever.

#### HOSPITAL ACCOMMODATION.

Your hospital accommodation is the same as formerly, and in my opinion is not sufficient. There is only accommodation for two diseases at one time, and the greatest possible number of cases of Enteric Fever which can be admitted at one time is 14. Now, I consider that an accommodation for only 14 cases of Enteric Fever is quite inadequate.

I have again to accentuate the impossibility of isolating a doubtful case, or a case of Chicken Pox or Measles.

Assume for a moment Typhus Fever appeared, what could be done with it? Everyone knows the fatal nature of Typhus Fever, and also the readiness with which it spreads in a badly-ventilated and crowded house. Lucky is the household wherein any one escapes Typhus if once it enters there.

This matter was prominently brought before your Council a year ago, by a report of your Hospital Committee, which recommended that your hospital should be enlarged. The Council did not adopt the recommendation, but instead appointed a Special Committee to consider the question, but up to now the Committee has not met, so there is no progress to be reported.

I again very strongly urge your Council to consider this question, which appears to me to be urgent, and enlargement very desirable.

#### FACTORY AND WORKSHOPS ACT, 1901.

The Factories and Workshops (all small places) have been visited regularly, and generally found in good condition.

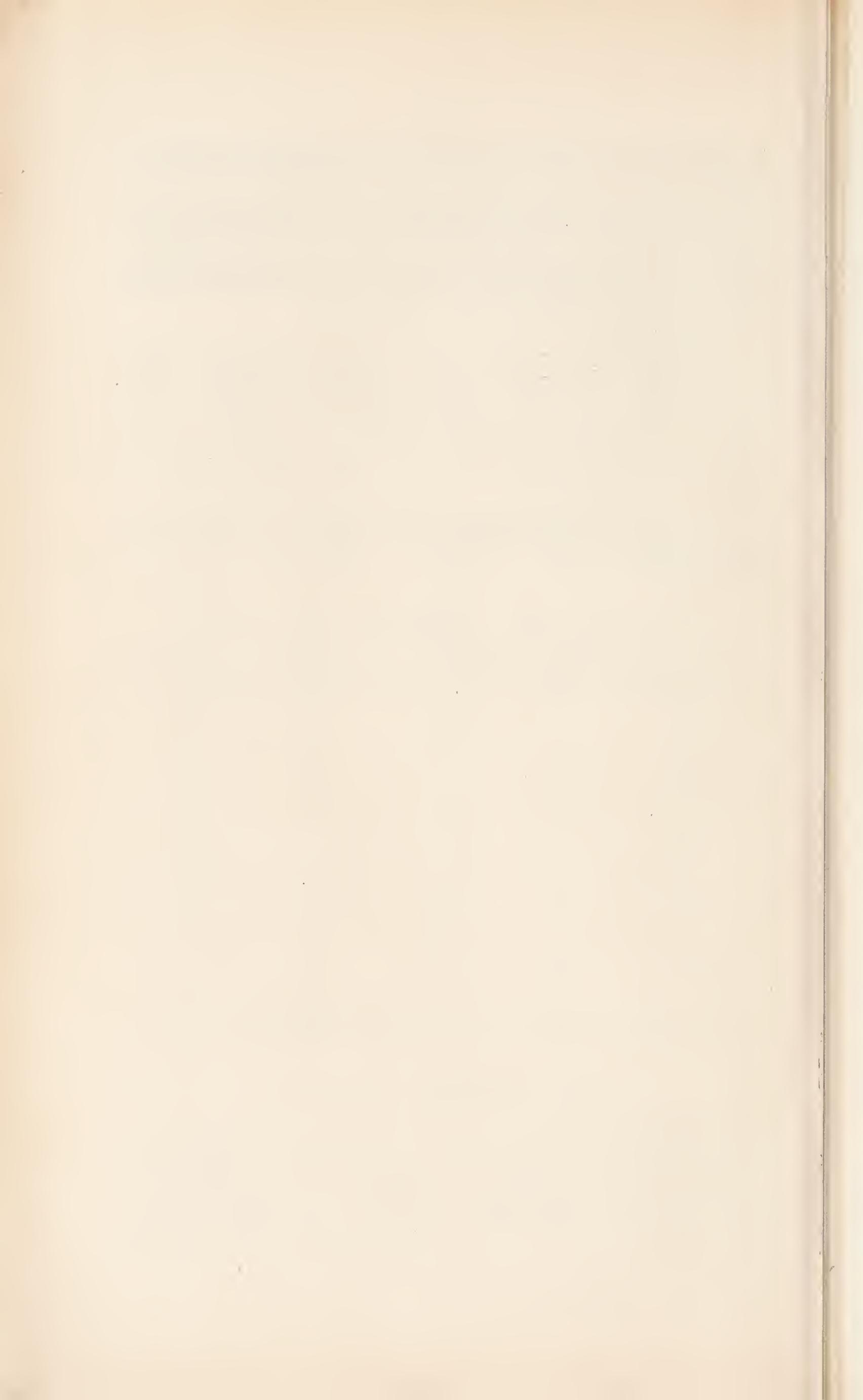


TABLE I.

## CHESTER-LE-STREET RURAL DISTRICT.

For Whole District.

YEAR	Population estimated to Middle of each Year	BIRTHS		DEATHS UNDER ONE YEAR OF AGE		DEATHS AT ALL AGES. TOTAL		DEATHS IN PUBLIC INSTITUTIONS	Deaths of Non-residents registered in District	Deaths of Residents registered beyond District	DEATHS AT ALL AGES. NETT.	
		Number	Rate. <sup>a</sup>	Number	Rate per 1,000 Births registered.	Number	Rate. <sup>a</sup>				Number	Rate. <sup>a</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13
1899.....	59,584	2,283	38·31	386	169·0	1,105	18·54	31	9	13	1,109	18·61
1900.....	60,594	2,361	38·96	467	197·7	1,220	20·11	36	5	13	1,228	20·26
1901.....	60,833	2,380	39·12	422	177·3	1,167	19·18	42	6	11	1,172	19·26
1902.....	62,392	2,407	38·57	331	137·5	1,064	17·05	38	....	15	1,079	17·29
1903.....	64,462	2,473	38·36	432	174·6	1,207	18·56	43	7	13	1,213	18·81
1904.....	66,566	2,588	38·87	496	191·6	1,227	18·43	32	5	10	1,232	18·50
1905.....	68,985	2,602	37·71	467	179·4	1,216	17·62	25	3	8	1,221	17·69
1906.....	70,884	2,589	36·52	422	163·0	1,169	16·49	37	7	14	1,176	16·59
1907.....	72,911	2,534	34·75	376	148·3	1,189	16·31	40	....	10	1,199	16·44
1908.....	74,916	2,809	37·49	497	176·5	1,311	17·48	41	....	14	1,325	17·67
Averages for years 1899-1908 .....		2,502	37·86	429	171·5	1,187	17·97	36	4	12	1,195	18·11
1909.....	62,739	2,361	37·63	332	140·6	908	14·45	....	....	35	942	15·01

\* Rates calculated per 1,000 of estimated population.

Area of District in acres  
(exclusive of area covered by water). } 32,429

Total population at all ages, 48,789

Number of inhabited houses, 9,680

Average number of persons per house, 5·04

At Census of 1901.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
	<p>County Lunatic Asylum, Sedgefield.</p> <p>County Hospital, Durham.</p> <p>The Union Workhouse, Chester-le-Street.</p> <p>The Isolation Hospital, Chester-le-Street.</p>	<p>The Consumption Sanatorium, Black Fell.</p> <p>Dame Margaret's Home, Washington.</p> <p>Earl's House Industrial School, Witton Gilbert.</p>

The Union Workhouse is without the District.

TABLE II.  
CHESTER-LE-STREET RURAL DISTRICT.

NAME OF LOCALITIES, TOWNSHIPS.	BARMSTON.				BIDDICK, SOUTH.				BIRTLEY.				BURNMOOR.				COCKEN.				EDMONDSLEY.				HARRATON.				LAMBTON.				LAMESLEY.							
	Population esti- mated to middle of each Year.		Births registered.		Deaths at all ages.		Deaths under 1 year.		Population esti- mated to middle of each Year.		Births registered.		Deaths at all ages.		Deaths under 1 year.		Population esti- mated to middle of each Year.		Births registered.		Deaths at all ages.		Deaths under 1 year.		Population esti- mated to middle of each Year.		Births registered.		Deaths at all ages.		Deaths under 1 year.		Population esti- mated to middle of each Year.		Births registered.		Deaths at all ages.		Deaths under 1 year.	
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1899	585	22	5	2	58	1	1	..	5292	217	117	43	1395	58	22	6	104	4	3	..	2643	114	44	18	2477	97	48	14	177	4	..	..	5124	178	91	30				
1900	585	14	12	4	58	..	1	..	5479	210	106	48	1381	42	26	6	104	4	3	2	2643	128	50	18	2477	97	35	11	165	1	..	..	5124	205	105	39				
1901	588	18	11	5	38	1	..	..	5373	204	99	37	1449	58	25	10	100	3	6	..	2524	109	57	23	2788	83	45	10	151	6	3	1	5341	183	96	38				
1902	588	21	19	8	42	1	..	..	5580	218	97	27	1449	41	24	7	115	5	..	..	2524	113	50	18	2793	90	42	12	151	2	3	..	5356	193	83	28				
1903	588	23	15	5	42	1	..	..	5917	240	138	51	1449	52	27	12	115	3	1	1	2534	107	47	25	2803	87	37	9	151	4	2	1	5485	180	111	31				
1904	588	25	19	11	42	1	..	..	6548	258	146	52	1449	41	22	6	115	3	1	1	2534	109	49	27	2844	90	48	18	151	4	2	1	5556	183	89	34				
1905	588	28	9	4	42	2	..	..	7063	280	122	53	1449	45	18	6	115	3	2	1	2480	112	48	25	2849	83	42	14	151	3	4	1	5601	176	79	26				
1906	588	23	7	2	42	2	..	..	7271	257	111	37	1449	34	15	5	115	6	3	1	2354	85	38	17	2869	100	42	11	151	5	2	..	5705	197	80	24				
1907	588	23	10	2	42	..	..	..	7410	302	142	48	1419	40	17	4	115	5	2	2	2379	89	42	15	3002	81	45	11	151	5	2	2	5954	158	88	20				
1908	588	27	7	3	42	..	..	..	7658	268	131	43	1404	50	16	7	125	1	2	1	2334	85	17	9	3352	111	58	18	131	3	2	1	6297	207	94	37				
Averages of years 1899-1908	..	22	11	4	..	..	..	..	245	121	44	..	46	21	7	..	3	2	1	..	105	44	19	..	92	44	13	..	3	2	..	..	186	91	31					
1909	588	25	8	5	42	..	..	..	8119	294	102	36	1341	42	19	5	125	9	2	1	2334	80	41	10	3362	122	48	10	131	6	3	2	6297	191	78	22				



TABLE II—continued.  
CHESTER-LE-STREET RURAL DISTRICT.

YEAR.	NAMES OF LOCALITIES, TOWNSHIPS.				LUMLEY, GREAT.				LUMLEY, LITTLE.				OUSTON.				PELTON.				PLAWSWORTH.				URPETH.				USWORTH.				WALDRIDGE.				WASHINGTON.				WITTON GILBERT.			
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.				
1899 ....	2064	90	51	19	562	18	9	..	991	28	15	4	5247	241	92	35	1382	43	33	17	2921	85	58	21	5222	248	100	35	1543	62	26	8	4920	178	74	32	4627	169	92	35				
1900 ....	2064	72	33	11	562	18	5	1	991	28	16	4	5247	243	110	46	1382	56	30	16	2990	107	51	22	5660	226	135	44	1543	67	29	17	5036	178	98	46	4757	192	96	41				
1901 ....	2004	85	43	11	562	26	9	3	963	22	11	3	5504	227	122	51	1246	61	31	15	2613	92	52	20	6195	267	97	33	1491	53	27	9	4559	205	94	30	5300	225	109	37				
1902 ....	2004	63	32	6	644	28	9	5	1019	34	15	4	6104	252	125	38	1246	52	22	8	2718	123	40	13	6238	258	109	39	1491	52	29	6	4813	203	102	32	5398	196	79	24				
1903 ....	2004	83	40	11	638	18	7	1	1019	28	17	4	6488	289	136	60	1246	50	20	8	2878	106	45	18	6511	271	106	37	1491	55	32	12	4914	195	103	31	5506	237	111	45				
1904 ....	2004	74	54	14	643	26	12	8	1031	29	18	5	6816	344	146	67	1246	50	27	8	3075	119	43	20	6811	279	111	49	1491	50	25	6	5100	217	98	41	5638	189	111	46				
1905 ....	2004	81	46	11	643	18	11	2	1031	21	9	2	7416	326	157	76	1295	52	17	7	3160	121	49	19	7094	260	126	43	1491	54	17	6	5389	238	92	34	5794	212	111	42				
1906 ....	2004	65	46	10	643	18	5	3	1037	29	17	7	7521	355	157	65	1304	51	24	9	3205	110	47	17	7384	272	129	46	1491	45	9	5	6238	225	115	40	5985	225	100	40				
1907 ....	2004	78	38	15	877	19	11	2	1037	19	12	1	7598	332	155	67	1290	44	31	14	3405	111	54	16	7630	311	96	28	1491	40	19	4	6375	236	112	29	6269	232	97	34				
1908 ....	2004	89	57	25	1058	48	22	9	1037	30	9	5	7636	331	143	66	1318	52	24	10	3360	117	57	15	7729	297	146	56	1491	47	33	11	6771	291	144	42	6572	245	99	47				
Averages of years 1899-1908	....	78	44	13	....	24	10	3	....	27	14	4	....	294	134	57	....	51	28	11	....	109	49	18	....	268	115	41	....	52	24	8	....	216	103	36	....	212	100	39				
1909 ....	2025	85	34	9	1221	37	14	6	1037	26	11	4	7862	370	147	68	1318	62	24	9	3425	98	51	22	7762	326	131	42	1471	46	19	8	7345	299	109	34	6934	243	102	39				



TABLE III.  
CHESTER-LE-STREET RURAL DISTRICT.  
Cases of Infectious Diseases notified during the Year 1909.

NOTIFIABLE DISEASES	CASES NOTIFIED IN WHOLE DISTRICT										TOTAL CASES NOTIFIED IN EACH LOCALITY																		NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY										PUBLIC INSTITUTIONS									
	At all Ages.										At Ages—Years.																		Institutional.																			
	Under 1.	1 to 6.	6 to 15.	15 to 25.	25 to 65.	65 & upwards	Barnston.	Biddick, South.	Birley.	Burnmoor.	Cocken.	Edmondasley.	Harraton.	Lambton.	Lamlesley.	Lamley, Great.	Lamley, Little.	Onston.	Pelton.	Playsworth.	Urpath.	Usworth.	Walbridge.	Washington.	Witton Gilbert.	Dame Margaret's Home.	Earl's House Industrial School.	Barnston.	Biddick, South.	Birley.	Burnmoor.	Cocken.	Edmondasley.	Harraton.	Lambton.	Lamlesley.	Lamley, Great.	Lamley, Little.	Onston.	Pelton.	Playsworth.	Urpath.	Usworth.	Walbridge.	Washington.	Witton Gilbert.		
Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Diphtheria .....	76	2	30	39	5	.....	.....	.....	14	3	.....	3	2	.....	8	.....	9	.....	8	6	3	9	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Membranous Croup .....	.....	.....	.....	.....	.....	.....	.....	.....	16	2	.....	1	.....	5	.....	1	16	1	5	16	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Erysipelas .....	64	1	2	12	6	41	2	.....	16	2	.....	1	.....	5	.....	1	16	1	5	16	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Scarlet Fever .....	379	5	127	233	10	4	.....	13	5	1	35	12	.....	25	15	16	5	88	3	35	18	8	26	74	.....	.....	.....	.....	.....	.....	.....	.....	4	1	9	7	4	4	2	2	17	3	7	1	3	4	.....	
Typhus Fever .....	.....	.....	.....	.....	.....	.....	.....	5	4	.....	9	.....	2	1	.....	6	.....	4	15	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	2	3	5	2	1	1	2	10	4	.....	.....	.....	.....						
Enteric Fever .....	51	.....	3	19	14	15	.....	5	4	.....	9	.....	2	1	.....	6	.....	4	15	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....						
Relapsing Fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....						
Continued Fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....						
Puerperal Fever .....	4	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					
Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					
Totals .....	574	8	162	303	35	64	2	.....	48	14	1	38	24	.....	41	16	17	6	120	4	52	56	11	41	85	.....	.....	.....	.....	6	3	1	9	12	6	5	2	2	18	3	9	11	.....	7	4	.....	.....	.....



TABLE IV.  
CHESTER-LE-STREET RURAL DISTRICT.  
Causes of, and Ages at, Death during Year 1909.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.						DEATHS IN LOCALITIES AT ALL AGES.—(TOWNSHIPS).																		PUBLIC INSTITUTIONS.				
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	Barnston.	Biddick, South.	Birtley.	Burnmoor.	Cocken.	Edmondstey.	Harrington.	Laundon.	Lamesley.	Lamley, Great.	Lamley, Little.	Oulton.	Pelton.	Pawsworth.	Perth.	Usworth.	Walbridge.	Washington.	Witton Gilbert.			
Smallpox .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
Measles .....	12	2	9	1	.	.	.	.	.	1	.	.	.	1	.	1	.	.	1	.	2	3	.	3	.	.			
Scarlet Fever .....	10	.	5	5	.	.	.	.	.	.	.	.	.	.	1	3	.	.	.	2	.	.	.	.	.	4	.		
Whooping Cough .....	28	11	17	.	.	.	.	.	.	2	.	.	.	2	1	5	2	.	6	.	.	5	.	5	.	2	.		
Diphtheria and Membranous Croup .....	13	2	8	3	.	.	.	.	.	1	.	2	.	4	.	.	.	.	1	.	1	1	1	2	.	1	.		
Croup .....	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Fever { Typhus .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Fever Enteric .....	7	.	.	1	3	3	.	.	.	1	.	.	.	2	.	.	.	.	1	.	1	1	.	1	.	.	.		
Other Continued .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Epidemic Influenza .....	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.		
Cholera .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Plague .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Diarrhoea .....	42	29	9	.	1	3	1	.	2	.	.	.	.	2	1	.	14	.	6	.	11	5	.	.	.	.			
Enteritis .....	4	.	1	1	.	1	1	.	.	.	.	.	.	1	.	1	.	1	.	1	.	1	.	1	.	.	.		
Puerperal Fever .....	7	.	.	.	1	6	.	.	.	.	.	.	1	.	1	1	1	1	1	1	1	1	.	.	.	.	.		
Erysipelas .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Other Septic Diseases .....	2	.	.	.	1	1	.	.	.	.	.	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.		
Phthisis .....	41	.	2	2	10	26	1	.	5	2	.	3	6	.	3	1	1	6	1	7	1	1	4	.	.	.	.		
Other Tubercular Diseases .....	31	11	10	5	1	4	.	.	7	.	2	3	.	1	.	1	1	6	2	5	1	3	.	.	.	.	.		
Cancer, Malignant Disease .....	41	.	.	.	1	29	11	.	3	.	1	3	.	3	2	2	2	4	2	1	6	2	4	6	.	.	.		
Bronchitis .....	51	17	11	.	4	19	2	.	4	.	1	4	.	4	1	1	7	2	3	6	.	11	5	.	.	.	.		
Pneumonia .....	115	40	28	2	5	28	12	.	14	1	1	10	4	1	10	4	.	13	3	11	14	2	14	13	.	.	.	.	
Pleurisy .....	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Other Diseases of Respiratory Organs .....	5	.	2	3	.	.	.	.	.	.	.	.	1	.	.	.	1	.	1	.	1	1	2	.	.	.	.		
Alcoholism—Cirrhosis of Liver .....	4	.	.	.	.	3	1	.	.	.	.	.	.	.	1	.	1	.	1	1	.	.	.	.	.	.	.	.	
Venereal Diseases .....	1	1	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Premature Birth .....	75	75	.	.	.	.	.	.	7	2	1	5	1	.	3	1	1	17	2	7	10	1	8	9	.	.	.		
Diseases and Accidents of Parturition .....	4	.	.	2	2	.	.	.	.	.	.	.	1	.	1	.	.	.	1	.	.	.	1	.	.	.	.		
Heart Diseases .....	73	.	5	3	37	28	1	.	10	4	.	4	4	.	10	3	1	8	4	10	.	8	6	.	.	.	.		
Accidents .....	41	1	4	7	2	19	8	.	4	2	.	4	2	.	4	2	1	2	2	9	1	2	6	.	.	.	.		
Suicides .....	4	.	.	1	2	1	.	1	.	.	.	.	.	.	.	.	.	3	.	.	.	.	3	.	.	.	.		
Diseases of Urinary System .....	21	.	1	.	14	6	.	.	3	.	.	1	.	2	1	1	4	2	2	2	.	2	3	.	.	.	.		
Cerebral Apoplexy .....	41	.	.	1	18	22	.	.	6	1	.	3	.	2	.	.	6	1	3	5	1	7	6	.	.	.	.		
Marasmus .....	25	22	3	.	.	.	1	.	2	.	.	2	.	2	.	.	5	.	1	6	.	4	2	.	.	.	.		
Meningitis .....	14	7	4	2	1	.	.	2	.	.	1	3	.	1	1	1	1	1	1	1	9	20	24	.	.	.	.		
All other causes .....	229	114	9	2	4	24	76	3	28	5	6	11	11	18	8	4	5	39	11	11	27	9	20	24	.	.	.	.	
All Causes .....	943	332	123	40	36	222	190	8	102	19	2	41	48	3	78	34	14	11	147	24	51	131	19	109	102	.	.	.	.



TABLE V.

CHESTER-LE-STREET RURAL DISTRICT.

INFANTILE MORTALITY DURING THE YEAR 1909.

### Deaths from stated Causes in Weeks and Months under One Year of Age

### District of Chester-le-Street:—

Population

Estimated to middle of 1909

Births in this year	$\left\{ \begin{array}{l} \text{legitimate} \\ \text{illegitimate} \end{array} \right.$	2,264	Deaths in the year of	$\left\{ \begin{array}{l} \text{legitimate infants} \\ \text{illegitimate infants} \end{array} \right.$	308
		97			24



TABLE VI.  
UNCERTIFIED DEATHS DURING 1909.  
CLASSIFIED ACCORDING TO AGES AND LOCALITIES.

LOCALITIES.	At all ages.	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Over 5 years.	Percentage of uncertified to all deaths.
Barmston .....								
Biddick, South .....								
Birtley .....	2					1	1	1·96
Burnmoor .....								
Cocken .....								
Edmondsley .....	1	1						2·44
Harraton .....	2						2	4·16
Lambton .....								
Lamesley .....	1						1	1·28
Lumley, Great .....	1						1	2·94
Lumley, Little .....								
Ouston .....	1	1						9·09
Pelton .....								
Plawsworth .....								
Urpeth .....								
Usworth .....	1						1	0·76
Waldrige .....	1	1						5·26
Washington .....	3	1	1				1	2·75
Witton Gilbert .....	1						1	0·98
Dame Margaret's Home .....								
Earl's House Industrial School .....								
Totals .....	14	4	1				8	1·48

TABLE VII.

## SMALLPOX IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

TABLE VIII.

## SCARLET FEVER IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....	3		4	2	1	1			2				13
Burnmoor .....	4	1											5
Cocken .....										1			1
Edmondsley .....	2	4	2	4	2	1	1	12	7				35
Harraton .....	8	1	....	2	....		1						12
Lambton.....													
Lamesley .....	3				1		4	1	5	6	5		25
Lumley, Great ....	1							8	1	2	3		15
Lumley, Little .....							4	10		1	1		16
Ouston .....	1			1	1	1				1			5
Pelton .....	5	13	11	11	19	4	8	4	3	4	6		88
Plawsworth .....				3									3
Urpeth .....	2	5	8	5	6			3	1		5		35
Usworth .....	5	5	1	1					1	2	3		18
Waldridge.....	3	1	....					1	2		1		8
Washington .....	2	2	1	2	1	3	3	4	2	4	2		26
Witton Gilbert ....	7	3	7	2	16	6	5	3	11	9	5	....	74
Dame Margaret's Home .....													
Earl's House Industrial School .....													
Totals .....	30	35	36	33	50	21	18	21	50	33	26	26	379

TABLE IX.  
TYPHOID (ENTERIC) & CONTINUED FEVER IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Biddick, South .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Birtley .....	.....	.....	.....	1	2	.....	1	.....	1	.....	1	.....	5
Burnmoor .....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	4
Cocken .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Edmondsley .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harraton .....	2	1	.....	2	.....	.....	.....	.....	.....	3	.....	1	9
Lambton .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lamesley .....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2
Lumley, Great .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Lumley, Little .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ouston .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pelton .....	.....	.....	.....	.....	.....	.....	1	.....	1	1	.....	3	6
Plawsworth .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Urpeth .....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	1	.....	4
Usworth .....	1	1	....	1	....	1	4	....	1	1	4	1	15
Waldridge .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washington .....	.....	.....	1	1	2	.....	.....	.....	.....	1	.....	.....	5
Witton Gilbert .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dame Margaret's Home .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Earl's House Industrial School...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Totals ...</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>11</b>	<b>5</b>	<b>5</b>	<b>51</b>

TABLE X.  
DIPHTHERIA IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Barmston ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Biddick, South ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Birtley ...	.	4	1	.	.	2	2	2	.	2	.	1	14
Burnmoor ...	.	1	1	.	.	.	.	.	.	1	.	.	3
Cocken ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Edmondsley ...	.	.	.	.	.	.	1	.	.	1	1	.	3
Harraton ...	.	.	.	.	1	.	.	.	.	.	1	.	2
Lambton ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Lamesley ...	.	3	3	.	.	.	.	1	.	1	.	.	8
Lumley, Great ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Lumley, Little ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Ouston ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Pelton ...	.	1	1	1	1	.	.	.	.	2	1	2	9
Plawsworth ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Urpeth ...	.	1	3	3	.	.	.	.	.	.	1	.	8
Usworth ...	.	1	.	2	1	.	.	.	.	.	1	1	6
Waldridge ...	.	1	.	.	.	.	1	.	.	.	.	1	3
Washington ...	.	3	1	2	.	1	1	.	1	.	.	.	9
Witton Gilbert ...	.	4	1	.	.	.	2	.	2	.	1	1	11
Dame Margaret's Home ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Earl's House Industrial School ...	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals ...	6	17	12	4	2	3	8	2	4	6	6	6	76

TABLE XI.  
PUERPERAL FEVER IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....													
Burnmoor .....													
Cocken .....													
Edmondsley .....													
Harraton .....													
Lambton .....													
Lamesley .....							1						1
Lumley, Great .....													
Lumley, Little .....							1						1
Ouston .....													
Pelton .....							1						1
Plawsworth .....													
Urpeth .....													
Usworth .....		1											1
Waldridge .....													
Washington .....													
Witton Gilbert .....													
Dame Margaret's Home .....													
Earl's House Industrial School .....													
<b>Totals .....</b>		<b>1</b>					<b>2</b>	<b>1</b>					<b>4</b>

TABLE XII.  
ERYSIPelas IN 1909.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....	2	....	5	3	....	1	1	....	1	....	1	2	16
Burnmoor .....	1	1	....	....	....	....	....	....	....	....	....	....	2
Cocken .....													
Edmondsley .....													
Harraton .....					1	....	....	....	....	....	....	....	1
Lambton .....													
Lamesley .....			1	....	1	....	2	....	1	....	....	....	5
Lumley, Great .....													
Lumley, Little .....													
Ouston .....										1	....	....	1
Pelton .....	2	2	1	2	1	....	4	....	2	....	....	2	16
Plawsworth .....					1	....	....	....	....	....	....	....	1
Urpeth .....	1	1	....	....	....	....	....	....	1	1	1	....	5
Usworth .....	1	1	2	2	4	1	1	....	3	....	....	1	16
Waldridge .....													
Washington .....												1	1
Witton Gilbert .....													
Dame Margaret's Home .....													
Earl's House Industrial School .....													
Totals .....	7	5	9	8	7	2	8	....	7	2	2	7	64

TABLE XIII.

**Birth-Rate, General Death Rate, Zymotic Death Rate, Diarrhoeal Death Rate, and Infantile Death Rate in each Township during 1909.**

TOWNSHIP.	Birth Rate per 1000.	General Death Rate per 1000.	Zymotic Death Rate per 1000.	Diarrhoeal Death Rate per 1000.	Infantile Death Rate per 1000 born.
Barmston .....	42.51	13.60	1.69	1.69	250
Biddick, South .....	.....	.....	.....	.....	.....
Birtley .....	36.21	12.56	0.61	0.24	122
Burnmoor .....	31.32	14.16	1.49	.....	119
Cocken .....	72.00	16.00	.....	.....	111
Edmondsley .....	34.27	17.56	0.85	.....	125
Harraton .....	36.28	14.27	0.89	.....	83
Lambton .....	45.80	22.90	15.26	.....	333
Lamesley .....	30.33	12.38	1.42	0.31	115
Lumley, Great .....	41.97	16.79	4.44	0.49	106
Lumley, Little .....	30.30	11.46	1.63	.....	162
Ouston .....	25.08	10.60	.....	.....	153
Pelton .....	47.06	18.69	3.18	1.78	184
Plawsworth .....	47.04	18.20	.....	.....	145
Urpeth .....	28.61	14.78	0.87	.....	224
Usworth .....	42.00	16.87	2.06	0.77	128
Waldridge .....	31.27	12.91	0.68	.....	174
Washington .....	40.70	14.84	2.85	1.54	113
Witton Gilbert .....	36.48	14.71	1.87	0.72	160

TABLE XIV.

**POPULATION OF THE SEVERAL TOWNSHIPS IN  
THE DISTRICT.**

ESTIMATED TO THE MIDDLE OF THE YEAR 1909.

TOWNSHIPS.	1901 (Census).			1908.	1909.			
	Number of In-habited Houses.	Population.	Average per House.		Popula-tion.	Number of In-habited Houses.	Population.	Increase.
	As compared with 1908.							Decrease.
Barmston .....	127	588	4·63	588	127	588	.....	.....
Biddick, South.....	11	38	3·52	42	12	42	.....	.....
Birtley .....	1083	5373	4·96	7410	1637	8119	461	.....
Burnmoor .....	292	1449	4·95	1419	271	1341	.....	63
Cocken .....	20	100	5·00	115	25	125	.....	.....
Edmondsley .....	500	2524	5·04	2379	463	2334	.....	.....
Harraton .....	542	2788	5·14	3002	654	3362	10	.....
Lambton.....	31	151	4·87	151	27	131	.....	.....
Lamesley .....	1074	5341	4·97	5954	1267	6297	.....	.....
Lumley, Great .....	439	2004	4·56	2004	444	2025	21	.....
Lumley, Little .....	96	562	5·85	877	222	1221	163	.....
Ouston .....	153	963	6·29	1037	165	1037	.....	.....
Pelton .....	1145	5504	4·80	7598	1638	7862	226	.....
Plawsworth .....	270	1246	4·61	1290	286	1318	.....	.....
Urpeth .....	523	2613	5·00	3405	685	3425	65	.....
Usworth .....	1132	6195	5·47	7630	1419	7762	33	.....
Waldridge.....	292	1491	5·10	1491	288	1471	.....	20
Washington .....	897	4559	5·08	6375	1446	7345	574	.....
Witton Gilbert.....	1053	5300	4·89	6269	1418	6934	362	.....
Totals .....	9,680	48,789	5·04	61,036	12,494	62,739	1,915	83



## *A P P E N D I X .*

### CHESTER-LE-STREET TOWNSHIP.

For the first three months of the year this township was a contributory portion of the rural district, but as from the 1st April it was disjoined and constituted an Urban District.

The statistics given below, and anything else referring to the township, deal only with the three months aforesaid.

#### BIRTHS.

The number of births registered during the period in question was 127. The birth rate is 35.77 per 1,000, as compared with a birth rate of 36.40 per 1,000 last year, and with a rate of 29.47 per 1,000 for the previous year.

#### DEATHS.

During the quarter 65 deaths were registered, of which 56 were of persons belonging to the township. This gives a corrected general death rate of 15.77 per 1,000, as compared with a general death rate of 18.84 per 1,000 for 1908, and with a rate of 16.28 per 1,000 for the previous year.

#### INFANTILE DEATH RATE.

The number of children who died during the quarter under one year old was 19. This gives an infantile death rate of 157 per 1,000 born, as compared with 180 per 1,000 for 1908, taking the whole of that year as the unit.

The number of deaths from the seven chief Zymotic diseases was 7, giving a zymotic death rate of 1.97 per 1,000, as compared with a zymotic death rate of 2.20 for the whole year of 1908.

Respecting other deaths, 3 were due to Premature Birth, and 11 were due to Respiratory Diseases other than Phthisis. This gives a death rate for respiratory diseases of 3.09 per 1,000.

#### INFECTIOUS DISEASES.

The number of infectious diseases notified was 24; viz., 3 cases of Diphtheria, 3 cases of Erysipelas, one case of Enteric Fever, and 13 cases of Scarlet Fever, the age distribution of which will be seen in the annexed table.

## GENERAL SANITARY CONDITION.

The scavenging, which is done in part by the Council's own employees, was well performed. That done by Pelton Colliery Co. was also well performed.

There were not many improvements carried out during the quarter, but the Pelton Coal Company commenced the alteration of several back-to-back houses at the Pit Rows, Pelton Fell.

The impending change in the government and of the officers paralysed all work in this township during the period of the year it remained a part of the rural district.

## THE HOSPITAL.

Of the 24 cases of infectious disease notified, 14, or 58.3 per cent., were removed to the Isolation Hospital, the statistics of which are given elsewhere.

T A B L E III.  
TOWNSHIP OF CHESTER-LE-STREET.  
CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE  
FIRST QUARTER OF THE YEAR 1909, AND REMOVED  
TO THE ISOLATION HOSPITAL.

NOTIFIABLE DISEASES.	At all Ages.	At Ages—Years.						Removal to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & upwards	
Smallpox .....	.	.	.	.	.	.	.	.
Cholera .....	.	.	.	.	.	.	.	.
Diphtheria .....	3	....	3	....	....	....	....	....
Membranous Croup .....	.	.	.	.	.	.	.	....
Erysipelas.....	3	....	....	....	....	3	....	....
Scarlet Fever .....	17	....	4	13	....	....	....	14
Typhus Fever .....	.	.	.	.	.	.	.	....
Enteric Fever .....	1	....	....	....	....	1	....	....
Relapsing Fever .....	.	.	.	.	.	.	.	....
Continued Fever .....	.	.	.	.	.	.	.	....
Puerperal Fever .....	.	.	.	.	.	.	.	....
Plague .....	.	.	.	.	.	.	.	....
 Totals .....	24	....	7	13	....	4	....	14



TABLE IV.

## TOWNSHIP OF CHESTER-LE-STREET.

CAUSES OF, AND AGES AT, DEATH DURING THE 1ST QUARTER OF THE YEAR 1909.

CAUSES OF DEATH.	At All Ages.	Under 1.	5 to 5.	15 to 25.	25 to 65.	65 and upwards.	Hospitals or Chester-le-Street without the Townships.	Isolation Hospitals.	Workhouse.
Smallpox . . . . .									
Measles . . . . .									
Scarlet Fever . . .	1		1			1	1		
Whooping Cough . . .	4	2	2			4			
Diphtheria and Membranous Croup . . .	1		1			1			
Croup . . . . .									
Typhus . . . . .									
Fever { Enteric . . .	1			1			1		
Other Continued . . .									
Epidemic Influenza . . . . .									
Cholera . . . . .									
Plague . . . . .									
Diarrhoea . . . . .	1	1				1			
Enteritis . . . . .	1		1			1			
Puerperal Fever . . .									
Erysipelas . . . . .									
Other Septic Diseases . . . .	1				1		1		
Phthisis . . . . .	3			2	1		3		
Other Tubercular Diseases . . . .	1			1			1		
Cancer, Malignant Disease . . . .	1				1		1		
Bronchitis . . . . .	5		1			4	3	2	
Pneumonia . . . . .	6	3	1	1	1	6	6	1	
Pleurisy . . . . .									
Other Diseases of Respiratory Organs .	2	1				1	2		
Alcoholism—Cirrhosis of Liver . . . .									
Venereal Diseases . . . .									
Premature Birth . . . .	3	3				3			
Diseases and Accidents of Parturition . .									
Heart Diseases . . . .	9				1	3	5	8	1
Accidents . . . . .	3		2			1		3	
Suicides . . . . .									
Diseases of Urinary System . . . .	2					1	1	1	1
Cerebral Apoplexy . . . .	5					2	3	3	3
Marasmus . . . . .	1	1						1	
Meningitis . . . . .									
All other causes . . . . .	15	9	1			1	4	13	2
All Causes . . . . .	66	20	8	2	4	14	18	56	211



TABLE V.

## TOWNSHIP OF CHESTER-LE-STREET.

## INFANTILE MORTALITY DURING THE FIRST THREE MONTHS OF THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	All Causes.	Deaths under One Year and over One Month.														
		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	1 Month.	2 Months.	3 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.
Smallpox	6	3	9	4	1	1	1	1	1	1	1	1	1	1	1	1
Chicken-pox																
Measles																
Scarlet Fever																
Diphtheria: Croup																
Whooping Cough																
Diarrhoea, all forms																
Enteritis ( <i>not Tuberculosis</i> )																
Gastritis, Gastro-intestinal Catarrh																
Premature Birth	3	1	4													
Congenital Defects	2		2													
Injury at Birth																
Want of Breast Milk																
Atrophy, Debility, Marasmus	1	1	2	2	1											
Tuberculous Meningitis																
Tuberculous Peritonitis:																
Tubes Mesenterica																
Other Tuberculous Diseases																
Erysipelas																
Syphilis																
Rickets																
Meningitis ( <i>not Tuberculosis</i> )																
Convulsions	1	1	1	1	1											
Bronchitis																
Laryngitis																
Pneumonia																
Suffocation, overlaying																
Other Causes																

Township of Chester-le-Street:—

Population.

Estimated to middle of 1909.

Births in this Quarter	legitimate ..	110	Deaths in the Quarter	legitimate infants ..	..	15
	illegitimate ..	17		illegitimate infants ..	..	5
Deaths from all Causes at all Ages ..	..	..			56	

